JUGONNATH SUNKERSETT
PRESENTATION.

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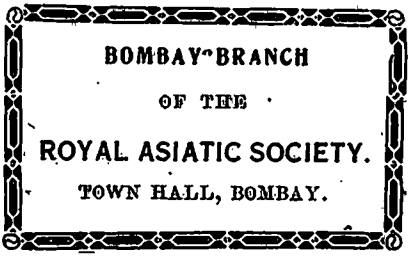

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English Botany
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by
James Edward Smith

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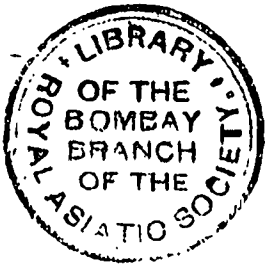
Vol. 9 ar



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Melittis Melisophyllum B.

MELITTIS Melissophyllum.

Reddish Bastard-Balm.

DIDYNAMIA Gymnospermia.

GEN. CHAR. *Cal.* unequal, wider than the tube of the corolla. *Cor.* upper lip flat; lower three-lobed, crenate. *Antheræ* cohering cross-wise.

SPEC. CHAR. Calyx three-lobed.

SYN. Melittis Melissophyllum. *Linn. Sp. Pl.* 832. *Huds.* 264. *With.* 539.

Melissa Fuchsii. *Raii Syn.* 242. *Camer. Hort. t.* 30.

THIS beautiful plant is found in woods and hedges in several parts of the West of England; Ray says about Totness, Devonshire, and Haverford-west, Pembrokeshire; and Hudson in the New Forest. Specimens gathered by Mr. Lightfoot in St. Leonard's Forest, Sussex, and near Netley Abbey, Hampshire, are in his herbarium at Frogmore, and exactly agree with ours, which is the produce of a root brought by Mr. Hudson from the West to Chelsea-garden, where it continues, unaltered by culture. Another most distinct species, whose calyx is four-lobed, and corolla different in size and colour from this, has been figured by Mr. Curtis as the English kind, *Fl. Lond. fasc.* 6. *t.* 39. If therefore he has not confused himself with a garden specimen, there are two species of *Melittis* in England, which we shall take an opportunity of ascertaining further when in our power. Hitherto we have never seen authentic specimens of any other than this, the true M. *melissophyllum* of Linnæus.

It is perennial, and flowers in May. The whole herb has, when fresh, rather an offensive smell; when dried it smells like new hay, as is the case also with the other, which we beg leave to call M. *grandiflora*.

Root fibrous. Stems upright, simple, 18 inches high, leafy, square, hairy. Leaves opposite, on footstalks, ovate, serrated, hairy, sometimes obtuse. Flowers axillary, about 3 on each side, and often leaning one way. Calyx campanulate, ample, coloured, three-lobed; the upper lobe longest, acute, often dentate on each side; the side ones equal, pointed or notched. Corolla large, handsome, externally flesh-coloured, internally whitish, the lip marked with a divided crimson spot.

Iris Pseud-acorus

IRIS Pseud-acorus.

Yellow Water-Iris.

TRIANDRIA Monogynia.

GEN. CHAR. *Petals* 6, superior, alternately reflexed. *Stigmas* like petals.

SPEC. CHAR. Corolla beardless: inner petals less than the stigmas. Leaves sword-shaped.

SYN. Iris Pseud-acorus. *Linn. Sp. Pl.* 56. *Huds.* 14. *With.* 69. *Relh.* 15. *Sibth.* 21. *Abbot.* 9. *Curt. Lond. fasc.* 3. *t.* 4. *Woodv. Med. Bot. t.* 40.

I. palustris lutea. *Raii Syn.* 374.

VERY common in watery ditches, pools, and the margins of rivers, flowering in July, when it makes a very conspicuous and handsome appearance.

Root perennial, fleshy, horizontal, depressed, of a reddish brown, throwing out numerous long fibres, from its under side. Stem upright, roundish, smooth, leafy, bearing from 3 to 6 flowers, and a little taller than the leaves, which are also erect, about 3 feet high, sword-shaped, pointed, ribbed, inclining to a glaucous hue. Flowers of a full lemon-colour, the larger petals elegantly pencilled with dark purple, their termination roundish, broad, dependent. The inner petals are erect, narrow, blunt, much shorter than the arched, fringed and cloven, petal-like stigmas, which constitute the singular character of this genus, and under which the antheræ are sheltered. Ray mentions a variety with paler flowers, which is not very uncommon, and another with white ones; the latter we have never seen.

A slice of the fresh root, which is acrid and violently astringent, being held between the teeth, will very quickly remove some kinds of tooth-ache.

Carex riparia.

Pl. 1207. Published by J. Sowerby London.

CAREX riparia.

Great Carex.

MONŒCIA Triandria.

GEN. CHAR. Male, *Catkin* imbricated. *Cal.* of 1 scale. *Cor.* none. Female, *Catkin* imbricated. *Cal.* of 1 scale. *Cor.* inflated, permanent. *Seed* triangular, invested with the corolla.

SPEC. CHAR. Spikes oblong, acute; the male with lanceolate scales; the female with awn-pointed ones. Corolla ovato-lanceolate, forked at the tip.

SYN. Carex riparia. *Curt. Lond. fasc.* 4. *t.* 60. *Gooden. Tr. of Linn. Soc. v.* 2. 200. *With.* 108. *Relh.* 356. *Sibth.* 31. *Abbot.* 206.
C. acuta. *α. Huds.* 413.
Gramen cyperoides cum paniculis nigris. *Raii Syn.* 417.

ONE of our most common species of Carex at the banks of ditches and rivers, and in most watery places, flowering about April or May, and distinguished from all others by its greater size. There are indeed two more species, which had generally in England been confounded with this, till Mr. Curtis clearly determined their differences in the 4th fasciculus of his *Flora*, the *paludosa* and *acuta* of Dr. Goodenough. Linnæus confounded all three together under his *acuta*.

C. *riparia* has a strong, widely creeping, perennial root. Stem two or three feet high, leafy, with three sharp rough angles, which, like the edges of the leaves, cut like a fine saw. Leaves broad, sharp, erect, deep-green, a little glaucous beneath; those on the stem having a sheathing reticulated base. Spikes alternate, one of them terminal, about 3 of each sex, but the upper female ones generally terminate in several male flowers. The scales of the males are lanceolate, generally pointed, often blunt; those of the females, especially the lower ones, blunt, tipped with a sharp rough awn, one great mark of the species. The stigmas are three. The permanent corolla cloven at the tip, and ribbed. The male spikes are triangular, generally acute, but sometimes blunt.

Carex acuta.

CAREX acuta.

Slender-spiked Carex.

MONŒCIA Triandria.

GEN. CHAR. Male, *Catkin* imbricated. *Cal.* of 1 scale. *Cor.* none. Female, *Catkin* imbricated. *Cal.* of 1 scale. *Cor.* inflated, permanent. *Seed* triangular, invested with the corolla.

SPEC. CHAR. Stigmas two. Spikes cylindrical, slender; the female ones drooping when in flower, erect in fruit. Corolla pointed, entire.

SYN. Carex acuta. *Gooden. Tr. of Linn. Soc. v.* 2. 203. *With.* 109. *Linn. Sp. Pl.* 1388, *α. Fl. Suec.* 334, *β. Huds.* 413, *β.*

C. gracilis. *Curt. Lond. fasc.* 4. *t.* 62. *Relh.* 357. *Sibth.* 32.

Gramen cyperoides majus angustifolium. *Raii Syn.* 417.

EQUALLY common with the last in similar situations, flowering in May, being according to Mr. Curtis's observations a week or two later than that. This is certainly what Linnæus intended for C. *acuta* in both editions of his *Species Plantarum*, whatever he might at different periods erroneously refer to it besides; we therefore agree with Dr. Goodenough in retaining that name for it, without intending any disapprobation of Mr. Curtis's denomination, for there is no end of changing authentic printed names for the better.

The root creeps very far. The stem in watery places is as tall as C. *riparia*, but much shorter in meadows, and in every case much more slender (as well as the leaves), very sharply triangular, rough on the edges; its summit droops in a flowering state, but soon becomes erect. The leaves are of a fine green. Spikes cylindrical, slender; the male 2 or 3, with lanceolate bluntish brown scales marked with a green rib. The upper female spikes are often terminated by male flowers. Scales of the female flowers linear, sharpish. Stigmas only two, white. Permanent corolla entire and closed at the summit.

Vaccinium uliginosum.

VACCINIUM uliginosum.

Great Bilberry.

OCTANDRIA Monogynia.

GEN. CHAR. *Cor.* of 1 petal. *Filaments* arising from the receptacle. *Berry* inferior, with 4 cells and many seeds.

SPEC. CHAR. Flower-stalks single-flowered. Leaves deciduous, entire, obovate, smooth and even. Branches round.

SYN. Vaccinium uliginosum. *Linn. Sp. Pl.* 499. *Huds.* 164. *With.* 370. *Fl. Dan. t.* 231.

Vitis Idæa magna quibusdam, sive Myrtillus grandis. *Raii Syn.* 457.

ON marshy mountainous heaths, but not general in this island. It has hitherto been observed only in Westmoreland and Cumberland, except the Highlands of Scotland. We received wild specimens from the Rev. Mr. Harriman and Mr. Oliver, whose favours we have so often had occasion to acknowledge. It flowers in April or May, ripening its berries in August.

This grows taller than the common Bilberry figured in our plate 456, and the stem and branches are round. Leaves deciduous, obovate, obtuse, rarely inclined to be pointed, entire, a little revolute, veiny, smooth and even, not at all rugged, glaucous beneath. Flowers flesh-coloured, the calyx and corolla mostly four-cleft. Stamina generally 8, each with 2 horns as in the former species. Berry large, globular, black with a glaucous hue. Seeds finely striated.

The fruit has less flavour than the common Bilberry, but abounds with a weak acid juice. Mr. Lightfoot says it is apt to give the headache if eaten in any quantity. We do not know that it is ever used as food in England.

Placodium canescens.

LICHEN canescens.

Grey Tree Lichen.

CRYPTOGAMIA Algæ.

GEN. CHAR. Male, scattered warts.
Female, smooth shields or tubercles, in which the seeds are imbedded.

SPEC. CHAR. Crustaceous, spreading; rugged and rather leafy at the edge; of a glaucous grey. Shields central, depressed, black, with a narrow blackish border.

SYN. Lichen canescens. *Dicks. Crypt. fasc.* 1. 10. *t.* 2. *f.* 5. *With. v.* 4. 9. *Sibth.* 324.
L. incanus. *Relh.* 424.
Lichenoides cinereum, merè crustaceum, eleganter expansum. *Raii Syn.* 71.
L. crustosum orbiculare incanum. *Dill. Musc.* 135. *t.* 18. *f.* 17 A.

MR. DICKSON first, of all our late systematic authors, described this common species, which though extremely frequent on the barks of old trees, being rarely found in fructification, had been generally overlooked for L. *pallescens*.

It grows in a crustaceous manner flat upon the bark, forming patches, which often meet and run into each other. When separated with a knife it is found to be mealy, pliable and somewhat leafy towards the edge, its inner substance very white, the under side sometimes of a delicate pale flesh-colour. The upper side is concentrically rugged, of a light glaucous grey, not shining, often sprinkled with white powdery spots, which Dillenius, perhaps rightly, considers as the male pollen; but he errs in believing it to be always produced on distinct plants from the shields. The latter are very rarely found, and only on the oldest plants, growing clustered in the middle part. They are flat and depressed, blackish, with a narrow, rather paler, margin.

Mr. D. Turner observes that when growing on walls or roofs it often decays in the centre, or is centrifugous.

ROSA villosa.

Apple Rose.

ICOSANDRIA Polygynia.

GEN. CHAR. *Cal.* urn-shaped, fleshy, contracted at the orifice, terminating in 5 segments. *Petals* 5. *Seeds* several, bristly, fixed to the inside of the calyx.

SPEC. CHAR. Fruit globose, bristly as well as the flower-stalks. Prickles of the stem straightish. Leaflets elliptical, downy on both sides.

SYN. Rosa villosa. *Linn. Sp. Pl.* 704. *Huds.* 219. *With.* 466. *Lightf.* 261.

R. sylvestris pomifera major nostras. *Raii Syn.* 455.

THE Apple Rose, well known in gardens and shrubberies, both in a single and double state, grows copiously in Westmoreland, Cumberland, and the north of Yorkshire, as well as in some parts of Scotland. Our wild specimen was communicated by Mr. Robson. It flowers in June, and the large deep red fruit remains, till eaten by birds, or destroyed by frosts or wet.

This shrub grows upright to the height of 4 feet or more; the branches are upright and short. Spines on the stem and branches scattered, small, awl-shaped, nearly straight. Leaflets 7, elliptical, bluntish, clothed on both sides with short velvet-like downiness, fragrant when rubbed, their serratures fringed with glands. Leaf-stalk downy, prickly, glandular. Flower-stalks terminal, mostly solitary or in pairs, single-flowered, rough with rigid glandular bristles. Germen globose, bristly. Segments of the calyx long, downy, prickly. Petals of a full rose-colour, not very odoriferous. Fruit globular, larger than in any other species, for the most part bristly, polished, of a dark red. Seeds large.

Dillenius mentions a downy-leaved rose in Ray's *Synopsis*, p. 478, found by Sherard near Kingston upon Thames, which, by his description, seems a variety of this, but I have not had an opportunity of ascertaining it. There is another species, with downy leaves, found in various parts of England, which will one day be published in this work.

Ranunculus Ficaria.

RANUNCULUS Ficaria.

Pile-wort.

POLYANDRIA Polygynia.

GEN. CHAR. *Cal.* 5-leaved. *Petals* 5 or 8, with a honey-bearing pore on the inside of the claw of each. *Seeds* naked.

SPEC. CHAR. Leaves heart-shaped, angular, on foot-stalks. Petals numerous.

SYN. Ranunculus Ficaria. *Linn. Sp. Pl.* 774. *With.* 503. *Relh.* 211. *Sibth.* 172. *Abbot.* 121. *Curt. Lond. fasc.* 2. *t.* 39. *Mart. Fl. Rust. t.* 21.

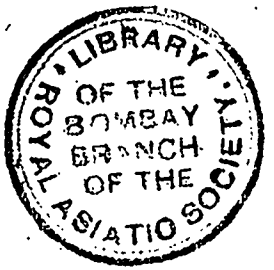
Ficaria verna. *Huds.* 244.

Chelidonium minus. *Raii Syn.* 246.

IN the spring of the year almost every grove, thicket, and dry hedge-bottom is enamelled with the glossy golden flowers of the Pilewort, the petals of which appear actually varnished. When they have been a few days exposed to a bright sun they become white, and then soon fall off.

The root is perennial, fibrous, accompanied by numerous fleshy pear-shaped knobs, which are renewed every year, as in the Orchis tribe. Herb smooth, shining, rather succulent and brittle. Stems several, erect, a few inches high, leafy, single-flowered. Leaves on long stalks, heart-shaped, angular. Flowers erect, on long stalks, inodorous. Calyx more generally of three leaves than of five, but it is not constant to either number. Petals 8 or 10, lanceolate.

The pore in the petals so strikingly marks the very natural genus of *Ranunculus*, that Mr. Hudson has not been followed in separating this from the rest, and calling it *Ficaria verna*. Yet his reasons seem plausible, the 3-leaved calyx and the 8 petals, and might be assented to if the former did not vary to 5, and the latter to 10, which last is merely a doubling of the proper number in other species. It may be said, that *Tormentilla* is separated from *Potentilla* on equally slight grounds. Perhaps it may. No science is brought to perfection at once, nor can any art keep pace with the intricacies of nature. These two genera however, have no striking peculiar character in common, like the pore of the *Ranunculus*.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FESTUCA ovina.

Sheep's Fescue-grass.

TRIANDRIA Digynia.

GEN. CHAR. *Cal.* of 2 valves. *Spikelet* oblong, somewhat cylindrical, with sharp-pointed glumes.

SPEC. CHAR. Panicle pointing one way, close. Florets roundish, smooth at their base. Straw square. Leaves bristle-shaped, rough.

SYN. Festuca ovina. *Linn. Sp. Pl.* 108. *Huds.* 44. *With.* 152. *Relh.* 40. *Sibth.* 43. *Mart. Fl. Rust. t.* 102.

β. F. rubra. *With.* 153, not of Linn.

γ. F. tenuifolia. *Sibth.* 44. *With.* 155.

Gramen capillaceum, locustellis pennatis, non aristatis. *Rati Syn.* 410.

A COMMON grass in dry exposed pastures, flowering in June, and supposed by Linnæus, Stillingfleet, and others, to be a peculiarly excellent food for sheep. Those who have recommended it for a crop of hay, have probably mistaken for it the *F. duriuscula*, *t.* 470, which thrives much more by culture, and yields a far greater produce. The square stem of *F. ovina* distinguishes them at once, without any other mark; the microscopic botanist may recur to the perfectly smooth-edged inner valve of the corolla, which in *F. duriuscula* is finely fringed.

Root perennial, composed of black smooth fibres. Straws a span high, slender, rigid, most evidently square in the upper part, smooth. Leaves bristly, rough, often glaucous, their sheaths smooth, striated. Stipula very short. Panicle short and small. Florets 4 or 5 in each spikelet, roundish, scarcely compressed or carinated, without ribs, smooth at the base, rough with minute points in the upper part, generally beardless as in the variety γ, but often more or less awned, as in our figure and the Linnæan specimens. Awns rough. The leaves being erect and pliable, or incurved and somewhat rigid, is not characteristic of either variety, so that we cannot adopt Dr. Sibthorp's *tenuifolia* as a species. The *rubra* of Withering proves, by an original specimen, to be a purplish variety only, very distinct from the *rubra* of Linnæus and Hudson, which indeed is scarcely red at all.

Draba verna.

May 1, 1793. Published by J. Sowerby, London.

DRABA verna.

Common Whitlow-grass.

TETRADYNAMIA Siliculosa.

GEN. CHAR. *Pouch* entire, long-oval: valves flattish, parallel to the partition. *Style* scarcely any.

SPEC. CHAR. Stalks naked. Petals cloven. Leaves lanceolate, hairy, slightly cut.

SYN. Draba verna. *Linn. Sp. Pl.* 896. *Huds.* 278. *With.* 565. *Relh.* 246. *Sibth.* 198. *Curt. Lond. fasc.* 1. *t.* 49.

Paronychia vulgaris. *Raii Syn.* 292.

THE tops of walls, and every dry bank, cottage roof, or barren pasture, are covered with the *Draba verna* in the months of March or April, "a season when any kind of blossom (as Mr. Curtis elegantly observes) is viewed with pleasure." Otherwise this little plant has no striking attractions; nor would its consequence probably be much advanced by any one who should rely on it for the cure of a whitlow. Indeed the old controversy about the true *Paronychia*, or whitlow grass, of the ancients, is scarcely worth reviving.

Root annual. All the leaves radical, lanceolate, either entire or irregularly dentate, clothed with simple hairs frequently intermixed with forked ones. Stalks about 2 or 3 inches high, erect, round, simple, slightly hairy, quite destitute of leaves, terminating in a corymbus of many small flowers, soon lengthened out into a somewhat zigzag racemus. Calyx-leaves spreading. Petals white, cloven about halfway down. Pouch elliptical, flattish, smooth, containing many seeds, and crowned with the permanent sessile stigma.

The whole herb has a pungent cress-like flavour. After ripening its seed, it soon withers away.

TURRITIS hirsuta.

Hairy Tower-Mustard.

TETRADYNAMIA Siliquosa.

GEN. CHAR. *Pod* very long, straight, somewhat angular. *Cal.* closed, erect. *Cor.* erect.

SPEC. CHAR. Leaves all rough. Stem hairy, the hairs simple and spreading. Pod quadrangular.

SYN. Turritis hirsuta. *Linn. Sp. Pl.* 930. *Huds.* 291. *With.* 589. *Relh.* 254. *Sibth.* 204. *Dicks. H. Sicc. fasc.* 9. 8.
T. muralis minor. *Raii Syn.* 294.

SENT from near Bury by W. Matthew, Esq.; and by Lord Visc. Lewisham from an old wall at the foot of St. Vincent's rocks, Bristol. It has been found in several other parts of Great Britain, but is by no means common. It flowers in May.

Root strong, woody, and perennial. Stems generally several, one of which is much stronger than the rest, erect, a foot high, leafy, branched, round, clothed with thick-set, simple, prominent hairs; the upper part and flowering branches are smooth. Leaves toothed, all more or less hairy; the radical ones slender at the base; those on the stem sessile, or partly embracing it. Flowers small, white. Pods numerous, forming a very long spike, erect, narrow, linear, compressed, but with 4 angles, smooth and somewhat shining, beaded as it were by the projecting seeds, rather blunt at the top, and crowned with the almost sessile stigma.

Linnæus originally confounded with this, not only *Turritis alpina* of his *Syst. Veg.* which has *all* the leaves (as far as I can discover) smooth, but also *T. hirsuta* of Gerard's *Flora Galloprovincialis*, which has perfectly flat pods without any lateral angles, and the hairs on its stem depressed and forked, as are all those on its leaves; which in the proper *T. hirsuta* are, for the most part, simple. I would not however lay too much stress on this circumstance, as in the genus of *Hedypnois* it is proved to be fallacious. This last mentioned *Turritis* flowers a month earlier. I received it from Switzerland by means of my much lamented friend Mr. Davall.

FUMARIA lutea.

Yellow Fumitory.

DIADELPHIA Hexandria.

GEN. CHAR. *Cal.* 2-leaved. *Cor.* ringent. *Filaments* 2, membranaceous, each bearing 3 *antheræ*.

SPEC. CHAR. Pods nearly cylindrical, shorter than their foot-stalk. Stems spreading, angular. Bracteæ minute. Spur short, rounded.

SYN. Fumaria lutea. *Linn. Mant.* 2. 258. *Bauh. Pin.* 143. *Mill. Ic. t.* 136. *f.* 1. *Gmel. Syst.* 1080. *Ait. H. Kew. v.* 3. 2.

F. capnoides, *With.* 620.

F. corydalis. *Matth. Valgr. v.* 2. 503.

FROM old walls near Fountain's Hall, within about 500 yards of the celebrated Abbey of that name in Yorkshire, communicated by Mr. W. Brunton jun., flowering in May, 1798. Dr. Withering, if we are right in our quotation, of which there can scarcely be a doubt, says it was first found wild near Castleton, Derbyshire, by a Mr. Howard. It is not rare about old gardens, and although both the above places of growth appear to establish it as a native, perhaps it may originally have escaped from the garden, like *Valeriana rubra*, and some others now well established.

Root fibrous and tufted, strongly fixed between the stones, perennial. Herb delicate, tender, smooth, a little glaucous. Stems spreading, branched, reddish, leafy, triangular. Leaves thrice-ternate, three-cleft. Flowers spiked, terminal, yellow. Bracteæ very small, serrated, acute. Spur of the corolla rounded, incurved, much shorter than the stalk, as is likewise the cylindrical pod.

F. capnoides, with which in his *Sp. Pl.* Linnæus originally confounded this, is an annual plant, with large lobed bracteæ, paler flowers, spur straight and taper, as long as the flower-stalk, pods twice as long, and triangular, crowned with the permanent style. The leaflets are also much narrower.

FUMARIA officinalis.

Common Fumitory.

DIADELPHIA Hexandria.

GEN. CHAR. *Cal.* 2-leaved. *Cor.* ringent. *Filaments* 2, membranaceous, each bearing 3 *antheræ*.

SPEC. CHAR. Spike lax. Pods single-seeded, globose, emarginate. Stem spreading. Leaflets with dilated segments.

SYN. Fumaria officinalis. *Linn. Sp. Pl.* 984. *Huds.* 309, α. *With.* 620. *Relh.* 267, α. *Sibth.* 217. *Abbot.* 152. *Curt. Lond. fasc.* 2. *t.* 52. *Mart. Fl. Rust. t.* 68. *Woodv. Med. Bot. t.* 88.

F. vulgaris. *Raii Syn.* 204.

VERY common in all kinds of cultivated ground, and about hedges or banks, flowering all summer long.

Root annual. Stem much branched, spreading and almost prostrate, angular, leafy. Whole herb smooth and glaucous. Leaves doubly pinnate, their principal divisions generally alternate, their leaflets wedge-shaped, lobed, dilated. Spikes or clusters opposite to the leaves, simple, many-flowered, lax. Bracteæ small. Flowers rose-coloured, with a green keel to the upper and under petals, and all of them very deep red at the summit. Spur short, very blunt. Seed-vessel nearly globular, but with a notch at the tip, so as to be (as Mr. Curtis well observes) somewhat inversely heart-shaped. It contains a single large round seed.

This plant is called in some old books *Fumus terræ* (smoke of the earth), a name perhaps more intelligible to the sapient writers than to us. The herb has been used as a purifier of the blood, and is said, even by Dr. Cullen, to be peculiarly serviceable in several disorders of the skin.

F. capreolata of Linnæus is surely a distinct species. We hope to give a representation of it at some future period.—*F. spicata* is still more distinct, though Linnæus once doubted it; having a dense spike, and a flat elliptical pod.

FUMARIA parviflora.

Small-flowered Fumitory.

DIADELPHIA Hexandria.

GEN. CHAR. *Cal.* 2-leaved. *Cor.* ringent. *Filaments* 2, membranaceous, each bearing 3 *antheræ*.

SPEC. CHAR. Spike lax. Pods single-seeded, globose, pointed. Stem spreading. Leaflets with linear channelled segments.

SYN. Fumaria parviflora. *Lamarck Encycl. v.* 2. 567.
F. tenuifolia. *Syn. Syn.* 200.
F. foliis tenuissimis, floribus albis, circa Monspelium nascens. *Vaill. Par.* 56. *t.* 10. *f.* 5.

DISCOVERED by the late Mr. Jacob Rayer, in the corn-fields about Woldham, near Rochester, in September 1792, and communicated by Mr. T. F. Forster. I have long hesitated to admit it as a species, but the difference in the leaves and flowers led me to a careful examination of the fruit, so important in characterising the species of *Fumaria* in general, and I have now scarcely a doubt remaining.

Root, stem, and glaucous colour, much like the common Fumitory, and the leaves are similarly constructed, but their ultimate subdivisions are very much narrower, linear, channelled, and not at all dilated or wedge-shaped. Flowers not more than half as large, paler, though similar in every part of their structure. Seed-vessel globular; but instead of being emarginate, as in the last, it is pointed, and on this circumstance the specific difference may perhaps be most safely rested.

This plant is common in cultivated ground about Paris, from whence it was communicated to me by the late Mr. Stephen De Lessert, a very ardent and ingenious young botanist, son of the lady to whom Rousseau addressed his letters on Botany.

Hyoscyamus niger.

HYOSCYAMUS niger.

Common Henbane.

PENTANDRIA Monogynia.

GEN. CHAR. *Cor.* funnel-shaped, obtuse, irregular. *Stamina* inclined. *Capsule* with a lid, two-celled.

SPEC. CHAR. Leaves sinuated, embracing the stem. Flowers sessile.

SYN. Hyoscyamus niger. *Linn. Sp. Pl.* 257. *Huds.* 92. *With.* 252. *Relh.* 90. *Sibth.* 77. *Abbot.* 50. *Woodv. Med. Bot. t.* 52.

H. vulgaris. *Raii Syn.* 274.

HENBANE is not uncommon in waste ground, about villages, and by the sides of roads in dry dusty places, more especially on a calcareous soil, flowering in July.

Root annual, spindle-shaped. Stem bushy, round, leafy. Leaves alternate, sessile, sharply sinuated. Spikes terminal, recurved, leafy, simple. Flowers sessile, erect. Calyx pitcher-shaped, with a regular five-cleft border, reticulated with veins, permanent. Corolla straw-coloured, most elegantly pencilled with a net-work of purple veins. Antheræ and style purplish. Capsule clothed with the body of the calyx, divided into two cells, and closed with a convex smooth lid. Seeds numerous.

The whole herb is downy, viscid, and extremely fœtid, though a slight degree of its odour is to some people not unpleasant. Its qualities are highly and dangerously narcotic, but like many other poisons, it may, under proper management (as Dr. Withering observes), prove an useful medicine. The seeds and capsules together, smoked as tobacco, are in some places a popular remedy for the tooth-ach, but convulsions and temporary insanity sometimes follow its use. The seeds alone, abounding with oil which counteracts their noxious properties, may be safely eaten, as I have often in my youth experienced, having been told the plant was Clary, and having then a predilection for its flavour. So the seeds of Poppies, which have a very sweet nut-like taste, may be eaten without any narcotic effect.

Atropa Belladonna

ATROPA Belladonna.

Dwale, or Deadly Nightshade.

PENTANDRIA Monogynia.

GEN. CHAR. *Cor.* bell-shaped. *Stam.* distant. *Berry* superior, of two cells.

SPEC. CHAR. Stem herbaceous. Leaves ovate, undivided.

SYN. Atropa Belladonna. *Linn. Sp. Pl.* 260. *Huds.* 93. *With.* 252. *Relh.* 90. *Sibth.* 78. *Abbot.* 51. *Curt. Lond. fasc.* 5. *t* 16. *Woodv. Med. Bot. t.* 1.

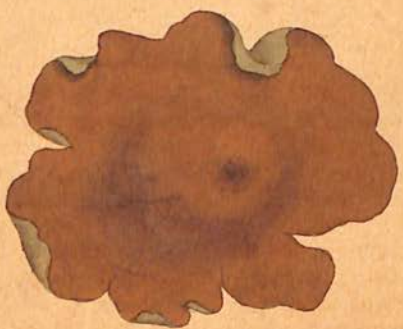
Belladonna. *Raii. Syn.* 265.

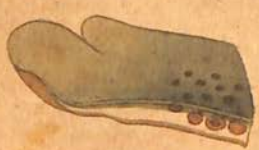
IN hedges and waste-ground, more especially on a calcareous soil, but happily not very frequent at present, it having by common consent been generally eradicated. The castle-hill at Castle-acre, Norfolk, was a few years ago overrun with it. Indeed it generally occurs about ruined castles and monasteries. Sir T. Frankland found it at Knaresborough, and near Sir Walter Vavasor's, at Haslewood, Yorkshire. The flowers appear in June, and the fruit ripens in August.

Root perennial, creeping, thick, fleshy, whitish. Stems annual, erect, about 3 feet high, branched, leafy, round. Leaves lateral, in pairs, one smaller than its companion, ovate, entire, of a dull green. Flowers on solitary, simple, axillary flower-stalks, drooping. Corolla of a dull purplish hue, truly expressive of the lurid poisonous tribe to which it belongs. Berry about the size of a small cherry, but flatter, of a shining black, its juice of a fine and lasting violet. Seeds numerous.

This is perhaps the most dangerous British plant. Its fruit is tempting in appearance, sweetish, and without any remarkable or repulsive flavour, so that children have often eaten it, and even half a berry is said to have proved fatal. It occasions a deep and deadly stupor. A draught of vinegar, and keeping the patient walking to prevent sleep, are said to be the surest means of cure. As this poison is not corrosive, and acts solely on the nerves, oil is not so beneficial, and emetics do not take effect.

The leaves given internally in infusion, and applied externally, have been much recommended in cancers; but the sufferings of the patient, under ever so small a dose, are dreadful.





2

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LICHEN miniatus.

Grey cloudy Lichen.

CRYPTOGAMIA Algæ.

GEN. CHAR. Male, scattered warts.
Female, smooth shields or tubercles, in which the seeds are imbedded.

SPEC. CHAR. Umbilicated, lobed, bulging, smooth on both sides, tawny beneath. Tubercles in numerous minute immersed dots.

SYN. Lichen miniatus. *Linn. Sp. Pl.* 1617. *Huds.* 549. *With. v.* 4. 66.
Lichenoides coriaceum nebulosum cinereum punctatum, subtus fulvum. *Dill. Musc.* 223. *t.* 30. *f.* 127, B. compared at Oxford.
β. Lichen amphibius. *With. v.* 4. 66.

COMMUNICATED by several of our friends from the North. It grows on shady, generally perpendicular, rocks, in the highlands and lowlands of Scotland, and in all the mountainous counties of England. It is plentiful under hanging rocks above Saxton's bath, Matlock, and found at all seasons.

Its general form is umbilicated, or fixed by a strong central root, being at first of one simple roundly-lobed leaf, smooth on both sides, pale grey above, of a dull green when wet, underneath of a reddish or tawny brown, but scarcely red enough to justify the name *miniatus;* hence the plant is often mistaken. This leaf soon becomes more compound. When old, the upper surface is copiously sprinkled with minute reddish dots, which soon become projecting points, and are undoubtedly the female fructification. On dissection, they are found to be immersed in the frond. We have specimens from Sweden, in which they seem here and there protruded into black warty excrescences, but they are still widely different from the proper concentric-lined tubercles of most umbilicated Lichens, see our *t.* 522, so that in a more natural arrangement, by the fructification, they would hardly come together. Indeed *L. miniatus* varies much from the real umbilicated form. Wherever water trickles down the rock it becomes complicated, lobed, and imbricated, as in *fig.* 2. sent by Mr. Salt from Yorkshire; sometimes inflated, and variously clustered together; sometimes cylindrical with erect edges. I have so often watched its growth, as to have no doubt of these being mere varieties.

Endocarpon aquaticum.

Dawson Turner del. et lith. Published by Wm Sowerby London.

LICHEN aquaticus.

Clustered water Lichen.

CRYPTOGAMIA Algæ.

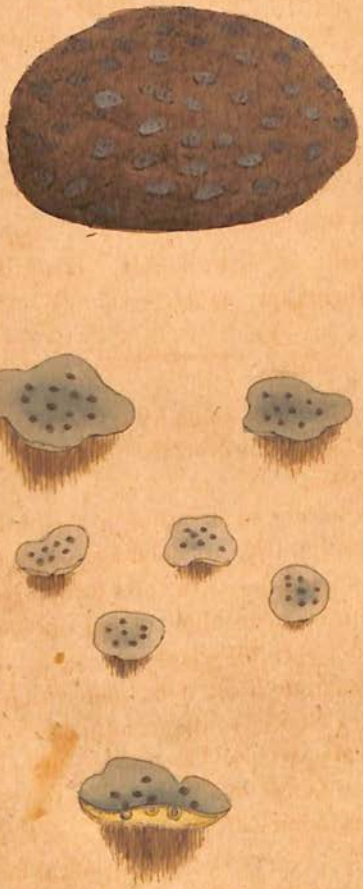
GEN. CHAR. Male, scattered warts.
Female, smooth sheilds or tubercles, in which the seeds are imbedded.

SPEC. CHAR. Obsoletely umbilicated, aggregate, lobed, creeping, smooth on both sides, greenish above. Tubercles in immersed dots.

SYN. Lichen aquaticus (by error of the press fluviatilis). *With. v.* 4. 67. *Weis Crypt.* 77.
L. fluviatilis. *Web. Gott.* 265. *t.* 4.
Platisma aquaticum. *Hoffm. Pl. Lich. t.* 45.

GATHERED in the bed of an alpine river at Hafod, Cardiganshire. It grows on large stones, or on small pebbles under water, in very large patches, consisting of numerous clustered leaves, which even at first are hardly to be called umbilicated, though about as much so as in *L. polyphyllus* of Linnæus. These leaves or fronds are roundly lobed, tumid, smooth on both sides, veinless, olive-green above, at least when moist, reddish-brown beneath. The tubercles are much like those of *L. miniatus*, but rather more dilated, and surrounded by a tumid margin from the substance of the frond. Hence Professor Hoffmann calls them *scutellæ*. It is remarkable that the fronds take root here and there by small solitary protuberances, to each of which a little pebble is commonly attached. This serves merely to fix the plant, not to nourish it, and is what is expressed in Dillenius's *t.* 30. *f.* 127 A; hence I conceive that figure to belong to this species rather than to *miniatus*, and his *f.* 128 to be the variety of *miniatus*, though I cannot speak positively, not having examined his collection at Oxford with this particular view.

It is, after all, very doubtful, whether *L. aquaticus* be any thing more than a variaty of *miniatus*, occasioned by its growing altogether in the water, and we rather publish it as distinct from a deference to the great authority of Hoffmann, than from a thorough conviction. Our *t.* 593 *f.* 2 appears to be the intermediate state between the two extremes.



LICHEN trapeziformis.

Quadrangular Lichen.

CRYPTOGAMIA Algæ.

GEN. CHAR. Male, scattered warts.

Female, smooth shields or tubercles, in which the seeds are imbedded.

SPEC. CHAR. Frond simple, flat, bluntly angular, thickish, smooth, of a dull glaucous green, with many roots. Tubercles in immersed black dots.

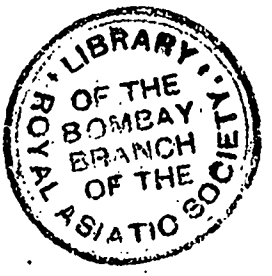
SYN. Lichen trapeziformis. *Dicks. Crypt. fasc. 2. 22. With. ed. 2. v. 3. 201. Hull. Brit. Fl. 296.*

L. Endocarpon. *With. v. 4. 52.*

FOUND by Mr. Dickson on barren heaths near Croydon, and by Mr. D. Turner in Norfolk. It is scarcely discernible but in wet weather.

The frond is hardly so broad as a shield of the common *L. parietinus,* and grows, attached by numerous long downy roots, quite flat upon the earth. Its form is irregularly quadrangular, with obsolete blunt lobes; its substance rather fleshy; its colour a dull glaucous green. The centre is sprinkled with minute black dots, under each of which, immersed in the substance of the frond, is a small tubercle, at length protruded upwards. It seems to be an annual plant.

On account of the strict affinity in the fructification of this and the Lichens in our *t.* 593 and 594, we have placed them near each other. It is probable they might form a genus together, which should be called *Endocarpon,* the generic name of this species in the celebrated Hedwig's great work. For this reason we have rather preferred another specific appellation.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June 1 1799 Sutton sheet by J. Sowerby London

IRIS - fœtidissima.

Stinking Iris.

TRIANDRIA Monogynia.

GEN. CHAR. *Petals* 6, superior, alternately reflexed. *Stigmas* like petals.

SPEC. CHAR. Corolla beardless: inner petals spreading. Stem with one angle. Leaves sword-shaped.

SYN. Iris fœtidissima. *Linn. Sp. Pl.* 57. *Huds.* 14. *Relh.* 15. *Abbot.* 9.

I. fœtida. *With.* 70. *Hull.* 11.

I. sylvestris quam Xyrim vocant. *Raii Syn.* 375.

IN groves, thickets, and under hedges, but rarely. It is found near Hornsey, and at Charlton; we have also met with it in Hertfordshire, and Norfolk. Dr. Withering mentions it as very common in all the South-west counties. The flowers appear in May, and the seeds in the open capsules make a conspicuous figure in Autumn.

Root perennial, fleshy, forming thick tufts. Stems near 2 feet high, smooth, leafy, roundish, with one angle or edge, and bearing several flowers. Leaves erect, sword-shaped, deep-green. Flowers springing out of large sheathing bracteæ, inodorous, of a dull pale purple, but from their finely-pencilled veins not unworthy of a close examination. The inner petals spread nearly as much as the outer ones, and are about as large as the stigmas, which are cloven, but scarcely fringed. The capsules are large and inflated, green externally, white within, containing several globular, polished, deep orange-coloured seeds.

The leaves, when bruised, have a very peculiar offensive smell, which gave occasion to the trivial name; yet this smell having some resemblance to the effluvia of roast beef, the name of Roast-beef plant has been applied as a title of honour to this Iris.

ALCHEMILLA vulgaris.

Common Ladies Mantle.

TETRANDRIA Monogynia.

GEN. CHAR. *Cal.* in 8 segments. *Cor.* none. *Seed* 1, naked.

SPEC. CHAR. Leaves lobed, plaited.

SYN. Alchemilla vulgaris. *Linn. Sp. Pl.* 178. *Huds.* 71. *With.* 204. *Hull.* 37. *Relh.* 68. *Sibth.* 61. *Abbot.* 36. *t.* 1.

Alchimilla. *Raii Syn.* 158.

A NATIVE of dry and rather mountainous pastures, in which it often constitutes a great part of the herbage, flowering from the end of May to August.

The root is woody and perennial, with fibres running deep into the ground. Stems more or less procumbent, alternately branched, round, hairy, leafy. Radical leaves on long foot-stalks, large, roundish, many lobed, plaited, serrated, more or less hairy, especially beneath. The verdure of their upper surface is remarkably fine. The stem-leaves are much smaller, almost sessile, connected with a pair of large toothed stipulæ, which embrace the stem, and the upper leaves gradually diminish into bracteæ. Flowers in terminal corymbose clusters, numerous, green, downy, their centre yellow. Structure of the flower much as in *A. alpina*, see *t.* 244. Style generally single, with a capitate stigma; but sometimes there are 2 styles, and in that case 2 seeds.

The *A. minor* of Hudson's first edition seems a trivial variety; more downy than the common kind, from growing in more exposed places.

"Of all our natives," says Mr. Abbot with an amiable degree of enthusiasm, "this is the most elegant plant." Various circumstances often combine to attach a botanist to some particular favourite, and give it for him almost an exclusive charm. Haller was enamoured with *Astrantia major*; Linnæus with *Trientalis europæa*, and *Melampyrum nemorosum*. If I were to avow a similar partiality, it would be in favour of *Geum rivale*.

Published by J. Sowerby

VACCINIUM Vitis Idæa.
Red Whortle-berry.

OCTANDRIA Monogynia.

GEN. CHAR. *Cor.* of 1 petal. *Filaments* arising from the receptacle. *Berry* inferior, with four cells and many seeds.

SPEC. CHAR. Clusters terminal, drooping. Leaves evergreen, obovate, revolute, finely toothed; dotted beneath.

SYN. Vaccinium Vitis Idæa. *Linn. Sp. Pl.* 500. *Huds.* 164. *With.* 371. *Hull.* 83. *Dicks. H. Sicc. fasc.* 5. 10.

Vitis Idæa sempervirens, fructu rubro. *Raii Syn.* 457.

DRY stoney heaths or moors (as they are called in the North) in the mountainous counties, are copiously clothed with this humble evergreen, especially in Derbyshire, from the borders of which, about six miles south-west of Sheffield, Mr. Salt sent us wild specimens. It flowers in June, and the berries ripen in August.

Roots creeping, woody. Stems mostly upright, a very few inches high, but little branched, zigzag, angular, smooth, pliant. Leaves alternate, on foot-stalks, evergreen, obovate, more or less finely toothed; smooth and shining above; pale and dotted beneath; their first appearance not unlike that of the dwarf box. An elegant drooping cluster of bell-shaped, blush-coloured flowers terminates the stem or branches. These flowers we have never observed to vary from their proper four-cleft form and 8 stamina. The antheræ terminate in a pair of taper points, through a pore at the end of which the pollen is discharged; but they have not the lateral horns described in *V. uliginosum*, *t.* 581. The berries are red, acid, astringent and bitter. They are scarcely to be eaten raw, and though made into pies in Derbyshire, where they are called Cow-berries, their flavour is far inferior to the Cranberry. Their best use is for making a rob or jelly, which is always eaten with all kinds of roast meat in Sweden, and is far preferable to that of the red currant as a sauce for venison. It is also an excellent medicine in colds, sore-throats, and all irritation of the mouth or fauces.

June 1 1799 Published by J.e Sowerby

SERRATULA alpina.

Alpine Saw-Wort.

SYNGENESIA Polygamia-æqualis.

GEN. CHAR. *Cal.* nearly cylindrical, imbricated; scales not pungent.

SPEC. CHAR. Calyx clothed with soft hairs, ovate. Leaves undivided, cottony beneath.

SYN. Serratula alpina. *Linn. Sp. Pl.* 1145. *Huds.* 349. *With.* 696. *Hull.* 180. *Lightf.* 448. *t.* 19.

Cirsium humile montanum, Cynoglossi folio, polyanthemum. *Raii Syn.* 193.

β. C. montanum polyanthemum, Salicis folio angusto denticulato. *Raii Syn.* 193.

COMMUNICATED by J. W. Griffith, Esq. from the highest rocks of Caernarvonshire, where it flowers in July and August. It appears from Mr. Lightfoot's account not to be very rare in Scotland, though one of the most truly alpine of all our British productions.

The roots are slender, though tough and woody. Stem very various in height, generally about 10 or 12 inches, simple, striated, cottony, leafy. Leaves no less various in form, generally ovate; sometimes linear-lanceolate, sometimes almost trowel-shaped; always more or less toothed, smooth above, cottony beneath; the radical ones on footstalks, those on the stem sessile and alternate. A cluster of flowers, each on its own simple flower-stalk, terminates the stem. The calyx is imbricated with soft, blunt, brown, hairy scales, and contains numerous purplish tubular florets with blue antheræ. The seed-down is feathery.

Lightfoot's figure, though miserably drawn and engraved, shews the most usual appearance of this *Serratula;* Plukenet's *t.* 154. *f.* 3, is more dwarf. Dillenius, in *Hort. Elth. t.* 70, and the figure in *Fl. Dan. t.* 37, represent the narrow-leaved taller variety β, as it grows in moist or rich places, or amongst other tall plants. Notwithstanding Linnæus's doubt in *Sp. Pl.* we are persuaded, from observations made upon the spot, that these are mere varieties occasioned by local accidents.

June 1 1799 Published by J. Sowerby

SENECIO squalidus.

Inelegant Ragwort.

SYNGENESIA Polygamia-superflua.

GEN. CHAR. *Recept.* naked. *Down* simple. *Cal.* cylindrical, scaly at the base; scales dead at the tip.

SPEC. CHAR. Radius spreading, longer than the calyx; its florets elliptical and entire. Leaves pinnatifid; their segments distant, somewhat linear.

SYN. Senecio squalidus. *Linn. Sp. Pl.* 1218. *Hort. Ups.* 260.

THIS *Senecio* grows abundantly on almost every wall in and about Oxford, and though long since noticed there by Sir Joseph Banks, it has not found its way into the *Flora Oxoniensis*, nor hitherto into any other. A careful comparison with the herbarium of Linnæus shews it to be his *squalidus*, seeds of which he received from Dillenius, with a manuscript name of *Jacobæa laciniatis foliis, tanaceti odore*, before the publication of his *Hort. Upsaliensis*, in which work he guesses it to be a native of the South of Europe. Most probably Dillenius collected these seeds from the walls of Oxford. If it were at that time only a garden plant there, it could scarcely have now totally left the garden, and established itself so perfectly elsewhere. It is at first sight so like a variety of *S. Jacobæa*, that Dillenius, as well as the late Prof. Sibthorp, might not dare to insert it in their works on wild plants. We have not materials to determine whether it may be the *S. gallicus* of Villars, *v.* 3. 230.

The root is annual or biennial. Stem various in luxuriance, erect, branched, often a little hairy. Leaves embracing the stem, deeply pinnatifid, narrow, dentate, nearly smooth, flat, rather fleshy, often purplish beneath. Flowers solitary at the end of terminal, straggling, bracteated, corymbose stalks. Calyx smooth, almost hemisphærical, its outer scales few and small. Inner florets very numerous. Those of the radius broad, spreading, elliptical, entire, of a bright golden yellow, at length reflexed. These florets, and indeed its whole habit and a peculiar smell, somewhat like Tansy or Mugwort, make the plant sufficiently distinct.

It flowers from June to the very end of Autumn. Our specimens were gathered by A. B. Lambert, Esq.

CHRYSANTHEMUM leucanthemum.

Great White Ox-eye.

SYNGENESIA Polygamia-superflua.

GEN. CHAR. *Recept.* naked. *Seed* bordered. *Cal.* hemispherical, imbricated; scales membranous at the edge.

SPEC. CHAR. Leaves embracing the stem, oblong, blunt, cut; pinnatifid at the base: the radical ones on footstalks, obovate.

SYN. Chrysanthemum leucanthemum. *Linn. Sp. Pl.* 1251. *Huds.* 371. *With.* 733. *Hull.* 184. *Relh.* 321. *Sibth.* 257. *Abbot.* 185. *Curt. Lond. fasc.* 5. *t.* 62. *Mart. Fl. Rust. t.* 109.

Leucanthemum vulgare. *Raii Syn.* 184.

EXTREMELY common in pastures, the borders of fields, and even among corn, flowering in June and July. It is perennial, and increases much by seed. We do not find it complained of as a troublesome weed, nor celebrated for any agricultural utility. As a medicine it has been used for an expectorant and diuretic; but appears to be inferior to many other plants. Its taste and smell are slighty aromatic, with a nauseous herbaceous sweetness.

The roots are fibrous, branched, tough and woody. Stems erect, 2 feet high, a little branched, round, furrowed, with red intermediate ribs. Radical and lower stem-leaves on long foot-stalks, obovate, serrated, and cut; the rest sessile, embracing the stem, alternate, oblong, jagged irregularly in the upper part, toothed in a pinnate manner about the base. All the leaves are nearly smooth, and of a deep green. A large solitary handsome flower terminates each branch, the disk of which is flat and yellow, the radius pure white, the florets of each being very numerous; those of the radius are elliptical, with 2 ribs and 3 teeth. The receptacle is flat, and destitute of scales. Seeds obovate, black, with white elevated ribs.

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ANTHEMIS arvensis.

Corn Chamomile.

SYNGENESIA Polygamia-superflua.

GEN. CHAR. *Recept.* chaffy. *Down* none. *Cal.* hemispherical, nearly equal. *Flowers* of the *radius* more than 5.

SPEC. CHAR. Receptacle conical; its scales lanceolate, keeled, acute. Seeds crowned with a border. Leaves slightly hairy.

SYN. Anthemis arvensis. *Linn. Sp. Pl.* 1261. *Huds.* 373. *With.* 737. *Hull.* 188. *Relh.* 323. *Sibth.* 259. *Abbot.* 186. *Mart. Fl. Rust. t.* 73.
Chamæmelum inodorum. *Dill. in Raii Syn.* 185.

A NUMBER of common plants of the *Syngenesia Polygamia-superflua* so much resemble each other, that they commonly excite little attention. They have not much beauty to boast; their smell is often disagreeable; they are noxious weeds to the husbandman; and the herb-gatherer is content if he can only distinguish among them the valuable Chamomile for the apothecary. Even the botanist often passes over these plants with a heedless undistinguishing eye. Their characters however are fixed and certain, and, when examined, richly repay our trouble, especially those found in the fructification.

Anthemis arvensis is not one of the most common of this tribe. It occurs here and there in gravelly fields, or rather, as Mr. Crowe observes, about farm-yards and out-houses, generally in plenty. Mr. B. Forster communicated our specimen from Walthamstow. It is biennial, flowering in June and July. Root small. Stem upright, much branched. Leaves alternate, doubly pinnatifid, their segments narrow and lanceolate. Soft cottony hairs are scattered over the whole herb, which has little or no smell. Flowers terminal, with a yellow disk, which becomes at length conical, and a broad white recurved radius. Calyx woolly, its inner scales in particular broad, and membranous at the edge. Scales of the receptacle lanceolate, keeled; and the seed is crowned with a quadrangular border: by which two last marks it is particularly distinguished from the fœtid *A. Cotula*. From every *Matricaria* and *Chrysanthemum* it is known by the presence of these scales on the receptacle.

LICHEN saxatilis.

Grey Stone Lichen.

CRYPTOGAMIA Algæ.

GEN. CHAR. Male, scattered warts.

Female, smooth shields or tubercles, in which the seeds are imbedded.

SPEC. CHAR. Imbricated; its segments sinuated, rough, pitted, grey; black and shaggy beneath. Shields bright chesnut.

SYN. Lichen saxatilis. *Linn. Sp. Pl.* 1609. *Huds.* 531. *Lightf.* 816. *With. v.* 4. 33. *Hull.* 294. *Relh.* 427. *Sibth.* 325. *Abbot.* 264.

Lichenoides crusta foliosa, supernè cinereo-glauca, infernè nigra et cirrhosa, scutellis nigricantibus. *Raii Syn.* 72.

L. vulgatissimum cinereo-glaucum lacunosum et cirrhosum. *Dill. Musc.* 188. *t.* 24. *f.* 83.

THOUGH called saxatilis, this Lichen is no less common on trunks of trees in every situation, than on rocks and stones in the more mountainous counties. It is found all the year round, but by no means generally in fructification. Large old spreading rock specimens are most likely to be met with in that state: and such are often rough with small grey branching mealy warts, especially about the centre.

The fronds spread circularly in a rugged imbricated manner, and are of a grey or ash colour above, full of pits and warty projecting lines; underneath they are quite black, and clothed with dense branching short black hairs, but not quite to the outer edge, which is brown and shining. The shields are a little elevated; externally of the colour of the frond, with a broad incurved mealy edge; internally of a bright polished chesnut or bay colour. Dillenius assures us from the examination of original specimens, that *Lichenoides No.* 65, *Raii Syn.* 73. is merely a variety of this; and justly remarks that the plant often acquires red and rusty stains during winter. We believe such stains to be owing to the urine of animals, which from its alkaline quality tinges many Lichens red.

LICHEN omphalodes.
Purple Rock Lichen.

CRYPTOGAMIA Algæ.

GEN. CHAR. Male, scattered warts.

Female, smooth shields or tubercles, in which the seeds are imbedded.

SPEC. CHAR. Imbricated; its segments many-lobed, shining, dark purplish brown, with white zig-zag cracks; black and very shaggy beneath. Shields dark chesnut.

SYN. Lichen omphalodes. *Linn. Sp. Pl.* 1609. *Huds.* 532. *Lightf.* 818. *With. v.* 4. 34. *Hull.* 295. Lichenoides saxatile tinctorium, foliis pilosis purpureis. *Dill. in Raii Syn.* 74. *Musc.* 185. *t.* 24. *f.* 80.

WE received this with the last described from North Wales, by favour of the Rev. Mr. Davies of Aber. It is altogether a mountain species, and much more rare than *L. saxatilis*. The high stony moors of North Wales, Scotland, and Derbyshire abound with it, as Cromford Moor near Matlock, where I have examined many hundred specimens without finding more than 2 or 3 shields.

It is generally distinct enough from the preceding, and known by its finer segments, dark purplish brown hue, polished surface, not pitted, but full of transverse zig-zag white cracks, and destitute of warty roughness. The under side is more thickly and universally shaggy with coal-black hairs that project beyond the lateral edges of the segments. The shields have grey edges, and a dark brown disk. Nevertheless some varieties of *L. saxatilis* so nearly approach this in every thing but colour, that I have, like Mr. Lightfoot, been often puzzled how to draw the line of discrimination.

L. omphalodes is sometimes called Cork or Archell, and is used by the Highlanders and Welch to dye purplish colours, as well as *L. tartareus*, *t.* 156. It is prepared by soaking in urine, till it softens into a paste, and is then dried in the sun. *Fl. Scot.*

JUNGERMANNIA lanceolata.

Lanceolate Jungermannia.

CRYPTOGAMIA Algæ.

GEN. CHAR. Male flowers sessile.

Female on a foot-stalk rising from a sheath. *Caps.* with 4 valves. *Seeds* attached to elastic filaments.

SPEC. CHAR. Fronds simply pinnate, lanceolate, flowering at the end. Leaves entire.

SYN. Jungermannia lanceolata. *Linn. Sp. Pl.* 1597. *Huds.* 510. *With.* 871. *Hull.* 277.

Lichenastrum capitulis nudis, Trichomanis facie, foliolis densiùs congestis, minus. *Dill. in Raii Syn.* 112.

L. Trichomanis facie minus, ab extremitate florens. *Dill. Musc.* 486. *t.* 70. *f.* 10.

GREAT elegance of structure is often observable in the minute and retired productions of the class *Cryptogamia*, and in none more than the *Jungermanniæ*. These humble plants inhabit the recesses of damp woods, creep over the decaying roots, leaves or stems of larger vegetables, or fill up the interstices of the grass under the shade of rocks or evergreen shrubs. They flower in the cold wet months of the winter or early spring: afterwards some, which appear to be annual, entirely decay; others are more or less dried up, but revive on the approach of the least moisture; and when wet, many of them diffuse a powerful aromatic odour, familiar to most people, in a grove, or on a shady grass-plat, after rain, or while the morning dew is upon the ground; yet few persons are aware of the minute vegetables to which this fragrance is almost entirely owing.

The present species was sent us from Holt, Norfolk, by the Rev. R. B. Francis, who has paid peculiar attention to this genus. It grows in small patches, almost prostrate; the stems branching, and taking root in their lower part. The leaves are alternate, imbricated, simple, roundish, entire, often tinged with purple at their outer edge. The female flower-stalk terminates the branch, growing from a cloven sheath, which Dillenius originally did not consider as such, probably from its shortness, and similitude to the leaves. This tender white stalk terminates in a black capsule, which splits into 4 parts as in the other species.

JUNGERMANNIA bidentata.

Triangular-sheathed Jungermannia.

CRYPTOGAMIA Algæ.

GEN. CHAR. Male flowers sessile.

Female on a footstalk rising from a sheath. *Caps.* with 4 valves. *Seeds* attached to elastic filaments.

SPEC. CHAR. Fronds simply pinnate, flowering at the end. Leaves with two unequal sharp teeth.

SYN. Jungermannia bidentata. *Linn. Sp. Pl.* 1598. *Huds.* 511. *With.* 871. *Hull.* 278. *Relh.* 418. *Abbot.* 252. *Sibth.* 310.

Lichenastrum Trichomanis facie, foliolis bifidis, majus. *Raii Syn.* 113.

L. pinnulis acutioribus et concavis, bifidis, majus. *Dill. Musc.* 487. *t.* 70. *f.* 11.

SENT by Mr. Teesdale from Yorkshire. It is not uncommon in heathy places and moist groves, often adhering with its long shoots to the upper surface of *Lichen caninus*. In such a situation it however does not blossom. When it grows in patches on the damp ground, its branches are shorter and more frequent, producing about October and November, solitary flower stalks from their summits, bearing brown capsules. The base of each stalk is enveloped in a longish tubular triangular sheath, unequally lacerated at its orifice. This sheath, like the whole herb, is of a pale or whitish pellucid green, and of a granular substance throughout. The leaves grow opposite or alternate; in the flowering plants imbricated; in the barren ones scarcely so. They are broad at the base, somewhat decurrent; at the summit sharply two-lobed, the lobes generally unequal, and the notch between them rounded. Opposite to every leaf a small tuft grows from the stem, which looks like roots. We have been told that this species was furnished with laciniated stipulæ. Have these eluded our search? or have those tufts of roots been taken for them?

This kind of *Jungermannia* is highly aromatic.

JUNGERMANNIA nemorosa.

Fringed Jungermannia.

CRYPTOGAMIA Algæ.

GEN. CHAR. Male flowers sessile.

Female on a footstalk rising from a sheath. *Caps.* with 4 valves. *Seeds* attached to elastic filaments.

SPEC. CHAR. Fronds pinnate, auricled; the auricles uppermost, in two ranks, ciliated. Flower-stalk terminal.

SYN. Jungermannia nemorosa. *Linn. Sp. Pl.* 1598. *Huds.* 512. *With.* 875.

J. nemorea. *Hull.* 279.

Lichenastrum auriculatum, pinnis minoribus crenatis. *Dill. Musc.* 490. *t.* 71. *f.* 18.

GATHERED by the Rev. Mr. Francis in woods near Holt, and communicated to us with its fructification in March, 1798. It appears to be a rare species. Dillenius says he had never observed it in England, nor is it mentioned in any of our local Floras. Hudson alone appears to have found it in Westmoreland.

The fronds grow upright, either simple or branched, forming tufts, of a pale green. The leaves are broad, convex, pointed, alternately imbricated, finely ciliated, accompanied on the upper side of the stem by a double row of smaller ciliated leaflets or auricles. The flower stalks grow solitary, from the end of each stem or branch, out of a very blunt almost entire and naked sheath, which droops toward one side before the flower-stalk is put forth. The capsule is brown, with rather broader valves than in some other species.

Jungermannia reptans

JUNGERMANNIA reptans,

Creeping Jungermannia.

CRYPTOGAMIA Algæ.

GEN. CHAR. Male flowers sessile.

Female on a footstalk rising from a sheath. *Caps.* with 4 valves. *Seeds* attached to elastic filaments.

SPEC. CHAR. Fronds branching, creeping, pinnate, simply auricled beneath, flowering at the base. Leaves and auricles four-toothed.

SYN. Jungermannia reptans. *Linn. Sp. Pl.* 1599. *Huds.* 513. *With.* 877. *Hull.* 280.

Lichenastrum Trichomanis facie, foliolis multifidis, capitulis ex imis cauliculis nascentibus. *Raii Syn.* 113.

L. multifidum exiguum, ad basin florens, per siccitatem imbricatum. *Dill. Musc.* 494. *t.* 71. *f.* 24.

THIS pretty species was also received from the Rev. Mr. Francis, having been gathered by himself in Edgefield wood, near Holt. It flowers in April and May.

It grows in patches, the fronds being much branched, creeping, throwing out roots here and there to their very extremities. The leaves are small, but greener and less tender than in some other species, convex, imbricated, ending in four deep sharp teeth or lobes. They grow nearly opposite, and each pair is connected beneath by a simple four-toothed auricle or stipula. The flower-stalks spring copiously from the beginning of the stem, and each is clothed at the base with a tubular sharply-toothed sheath. The capsules are blackish.

Mœnchia erecta.

Engraved by Sydenham, Botanical Library

SAGINA erecta.
Upright Pearlwort.

TETRANDRIA Tetragynia.

GEN. CHAR. *Cal.* 4-leaved. *Petals* 4. *Caps.* of one cell.

SPEC. CHAR. Stem erect, nearly single-flowered. Calyx-leaves acute. Petals undivided.

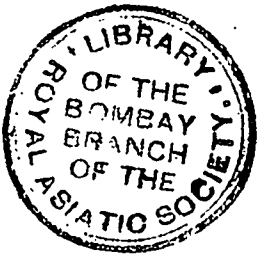
SYN. Sagina erecta. *Linn. Sp. Pl.* 185. *Huds.* 73. *With.* 216. *Relh.* 74. *Sibth.* 67. *Abbot.* 40. *Curt. Lond. fasc.* 2. *t.* 12. *Dicks. Hort. Sicc. fasc.* 6. 6. Alsinella foliis caryophylleis. *Raii Syn.* 344. *t.* 15. *f.* 4.

THIS is a little plant of considerable neatness and elegance of structure, which grows frequently on dry gravelly pastures and heaths among grass, flowering in May.

Root small and fibrous. Whole herb smooth and glaucous. Stems two or three inches high, straight, generally very few and upright, sometimes more numerous and divaricated, each bearing one or two flowers. Leaves opposite, lanceolate, acute. Flower-stalks solitary, very long, single-flowered, frequently purplish. Flowers upright, of a bright pearly-white. Calyx-leaves lanceolate, acute, with a membranous edge. Petals about as long as the calyx, undivided. Stamina four, short. Stigmas four, club-shaped, nearly sessile, downy. Capsule cylindrical, undivided, opening with eight or ten teeth, of one cell, containing many rough kidney-shaped seeds.

Mr. Curtis has well observed that the fruit of this plant is that of a *Cerastium*: It is certainly not that of the other *Saginæ*, which is formed with four entire valves, neither does the habit well agree with the rest of the genus. Professor Ehrhart accordingly made it a new one by the name *Mœnchia*, perhaps not unjustly.

It is proper here to correct an accidental fault in our generic character of *Sagina*, p. 166, "capsule with 4 cells," which ought to be *one cell*, and to express our assent to Mr. Curtis's opinion of the species there described being a *Cerastium*.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Tilia Europæa.

July 1. 17[illegible] Published by J[illegible] Sowerby London.

TILIA europæa.

Lime or Linden-tree.

POLYANDRIA Monogynia.

GEN. CHAR. *Calyx* in 5 divisions. *Petals.* 5. *Capsule* superior, leathery, obovate, angular, of 5 cells and 5 valves, bursting at the base.

SPEC. CHAR. Flowers without a nectary. Leaves heart-shaped, with the branching of their veins woolly beneath.

SYN. Tilia europæa. *Linn. Sp. Pl.* 733. *Huds.* 231. *With.* 490. *Relh.* 204. *Sibth.* 166.

T. vulgaris platyphyllos. *Raii Syn.* 473.

THE Lime-tree grows truly wild, in many parts of Great Britain, in woods and on grassy declivities, and is still more commonly seen cultivated in hedges, walks and alleys about houses. It will in some degree bear the smoke of London. The elegant Fenelon makes it one of the ornaments of Calypso's enchanted island, perhaps in compliment to the taste of Louis XIV, about whose palaces it was planted profusely. On a chalky soil its twigs are very red, and leaves downy.

It is a tall upright tree, with smooth spreading branches, thickly clothed with alternate heart-shaped serrated leaves, whose veins, where they branch off from the nerve, are furnished with a tuft of glandular wool, as in the Laurus-tinus. The flowers, which are delightfully fragrant, especially at night, come forth about July, in umbels or cymes, on long axillary stalks, with a singular linear entire pale bractea affixed to each stalk, and falling off with it. The calyx is green, with a downy edge. Petals yellowish. The nectaries found in some species are wanting in this. Capsule obovate, or angular, generally ripening but one seed.

The bark by maceration separates into thin tough layers, and is used for making the mats used by gardeners, and called in the north of Europe *Bast*. They form a considerable part of the exports of Russia. This quality in the bark, and a great degree of viscidity in the whole tree, evince its acknowledged affinity to the Mallow tribe.

611.
774.

Thalictrum majus.

THALICTRUM majus.

Greater Meadow-rue.

POLYANDRIA Polygynia.

GEN. CHAR. *Cal.* none. *Petals* 4 or 5. *Seeds* beardless.

SPEC. CHAR. Leaves triply pinnate; leaflets lobed. Branches of the panicle clustered, somewhat umbelled. Flowers drooping.

SYN. Thalictrum majus. *Jacq. Austr. t.* 420. *Linn. Syst. Veg. ed.* 14. 513. *With.* 502.

WE are indebted to Mr. Robson for wild specimens of this new British native, discovered by himself on a bushy hill at Baydales near Darlington, and also on the margin of Ullswater, Cumberland. It is perennial, flowering in June and July. From a comparison with Jacquin's figure and description, there appears to be no doubt of its being the plant he intended. Linnæus seems not to have known it. The figure of Dodonæus, *p.* 58. *f.* 1. reprinted in *Ger. em.* 1251. *f.* 1. bears a much greater resemblance to this species than to the *T. flavum* for which it is quoted.

T. majus is nearest related to the *minus*, but twice or thrice as large. The leaves are broader and more lobed, of a dark green above, glaucous beneath. Stem purplish, panicled, the flowering branches growing two or three together, the partial flower-stalks generally umbellate. Flowers drooping, with four purplish-green petals. Stamina capillary, with long yellow antheræ. Germens furrowed, with sessile, downy, somewhat arrow-shaped stigmas.

612.
776.

Clematis
Vitalba.

CLEMATIS Vitalba.

Traveller's Joy.

POLYANDRIA Polygynia.

GEN. CHAR. *Cal.* none. *Petals* 4 to 6. *Seeds* caudate. *Receptacle* a little round head.

SPEC. CHAR. Leaves pinnate; leaflets heart-shaped; footstalks twining.

SYN. Clematis Vitalba. *Linn. Sp. Pl.* 766. *Huds.* 238. *With.* 500. *Relh.* 209. *Sibth.* 170. *Curt. Lond. fasc.* 4. *t.* 37.

C. latifolia seu Atragene quibusdam. *Raii Syn.* 258.

PLENTIFUL about hedges and bushy places, but only in calcareous countries. It often covers the broken precipices of limestone rocks with a rich mantling tapestry, or hangs in festoons by the road side, gratifying the traveller with its fragrant white blossoms, which are produced throughout the month of July, or longer, in great profusion. In the autumn and winter the silvery plumes of its seeds afford a still more beautiful spectacle.

The stems are long, perennial, intricate and branching, clothed with opposite pinnated leaves, whose leaflets are heart-shaped, veiny, nearly smooth, entire or unequally serrated. Their long twisting footstalks, which are permanent though the leaves all fall off, support the plant upon other shrubs. Panicles axillary, forked, leafy, downy. Petals 4, leathery, downy on both sides. Seeds several, affixed to a small round knob, and each terminating in a long feathery awn.

Helleborus fœtidus.

HELLEBORUS fœtidus.

Stinking Hellebore.

POLYANDRIA Polygynia.

GEN. CHAR. *Cal.* none. *Petals* 5 or more. *Nectaries* tubular, two-lipped. *Capsules* compressed, nearly upright, with many seeds.

SPEC. CHAR. Stem many-flowered, leafy. Leaves pedate. Petals closed.

SYN. Helleborus fœtidus. *Linn. Sp. Pl.* 784. *Huds.* 245. *With.* 510. *Relh.* 218. *Sibth.* 177. *Abbot.* 124. *Woodv. Med. Bot. t.* 19.

Helleboraster maximus. *Raii Syn.* 271.

A NATIVE of pastures and thickets on a chalky soil, but not very common. It is plentiful on the Castle-hill at Castle Acre, Norfolk. Our specimen was sent by the Rev. Mr. Abbot from Bedford. It is one of the earliest of our native flowers, being commonly in full perfection in March, and often so early as January or February.

Root perennial. Stem branching, bushy, round, smooth, as is the whole herb. Leaves spreading, of a very dark dull green, pedate, the lobes lanceolate and serrated. Flowers panicled, of a pale green, as are likewise the numerous lanceolate bracteæ and whole of the inflorescence; but the petals (which are always closed, not spreading) are externally tipped with dull purple. Nectaries notched in the margin, full of pellucid honey. Styles 3 or 4. The whole herb is fœtid, acrid, and dangerously purgative.

The number of styles, in our two British Hellebores at least, is scarcely sufficient to lead the student to seek this genus in the order *polygynia*. In other species they are more numerous.

Arabis stricta.

ARABIS stricta.
Bristol Rock-Cress.

TETRADYNAMIA Siliquosa.

GEN. CHAR. *Nectariferous glands 4*, oblong, reflexed. *Cal.* closed; two of its leaves gibbous at the base. *Stigma* simple. *Pod* linear, rugose.

SPEC. CHAR. Leaves dentate, obtuse, rough; the radical ones somewhat lyrate. Stems rough. Petals erect.

SYN. Arabis stricta. *Huds.* 292. *With.* 587. *Velley Pl. Marit. t.* 5. *Shiercliff's Bristol Guide*, 83, *tab.* Turritis Raii. *Villars. Dauph. Vol.* 3. 326. *t.* 38. Cardamine pumila, bellidis folio, alpina. *Raii Syn. ed.* 2. 172. *ed.* 3. 300?

FEW of our plants are so local as this. It is not certainly known to grow in any other part of Britain than on St. Vincent's rocks near Bristol, where it was pointed out to me, flowering in May 1799, by Mr. W. Clayfield and Mr. Dyer. It is principally to be met with about a mile below the Hot-wells, on the opposite side of the river, growing on the more inaccessible parts of the rock, and there but in small quantity.

The root is certainly perennial, as the withered stem on our specimen testifies. Stems generally more than one, sometimes numerous; erect, round, a little branched, leafy, hairy below. Radical leaves many, dentated in a lyrate manner, blunt, rough, with simple (rarely forked) hairs; stem-leaves alternate, more entire; all the leaves are of a deep shining green, often purplish beneath. Flowers few, in upright *corymbi*, cream-coloured. Calyx smooth, very little spreading, generally quite closed. Petals twice as long as the calyx, obtuse, erect, by which this species is readily distinguished. Pods erect, straight, compressed, very slightly rugose. Seeds many.

We venture to quote, with a mark of doubt, the synonym of Ray which has always been quoted for *Cardamine bellidifolia*, to which it certainly does not belong, and which is now acknowledged not to grow at Bristol. It is not improbable our *A. stricta* may be the plant which Mr. Newton found, and that he or Ray erroneously referred to it the synonyms of Clusius and Gerarde by which it is distinguished in the Synopsis. These synonyms, however, belong neither to it nor to *C. bellidifolia*. What Merret had from Bath and Rippon cannot be determined.

615.
1271.

CAREX digitata.

Fingered Carex.

MONOECIA Triandria.

GEN. CHAR. Male, *Catkin* imbricated. *Cal.* of one scale. *Cor.* none. Female, *Catkin* imbricated. *Cal.* of one scale. *Cor.* inflated, permanent. *Seed* triangular, invested with the corolla.

SPEC. CHAR. Bracteæ membranous, sheathing, leafless, oblique. Spikes linear, erect: the male shorter and lower. Capsules distant.

SYN. Carex digitata. *Linn. Sp. Pl.* 1384. *Huds.* 409. *With.* 95. *Hull.* 206. *Gooden. Trans. of Lin. Soc. vol.* 2. 166. *Leers, t.* 16. *f.* 4.

IN searching for the *Arabis stricta*, Mr. W. Clayfield first observed this rare *Carex* growing profusely among bushes under St. Vincent's rocks on the south side of the river, flowering in May. It has hitherto been found near Bath only, by Mr. Sole. Fresh specimens of both plants were immediately communicated to Mr. Sowerby, from which these figures were taken.

Root perennial, fibrous, blackish, long, and much branched. Stems six or eight inches high, almost naked, straight, obscurely triangular, smooth. Leaves almost all radical, sheathing, keeled, bright green; their sheaths red; their points blunt, rough in the margin with teeth pointing forwards, while the lower part of the leaf, according to Dr. Goodenough's just remark, has the margin rough with similar teeth pointing backwards. Spikes about three, terminal, erect, slender, growing in a finger-like manner, from sheathing bracteæ with membranous edges. The male spike is the shortest and most dense. The one or two female ones are composed of rather remote, alternate, blunt, brown scales. The permanent corolla is green, obovate, and ribbed, slightly pubescent. Stigmas, as well as stamina, three.

Polypodium
Dryopteris

POLYPODIUM Dryopteris.

Three-branched Polypody.

CRYPTOGAMIA Filices.

GEN. CHAR. *Fructifications* scattered, in roundish dots, not marginal. *Involucrum* umbiliçated, bursting almost all round.

SPEC. CHAR. Frond three-branched: branches bipinnate, the lobes bluntish and toothed.

SYN. Polypodium Dryopteris. *Linn. Sp. Pl.* 1555. *Huds.* 460. *With.* 780. *Hull.* 240. *Dicks. Dr. Pl.* 16. Filix ramosa minor. *Raii Syn.* 125.

SENT from Staffordshire by the Rev. Thomas Gisborne, the same gentleman to whom we were obliged for *Epimedium alpinum*. This elegant fern is found only in stony parts of the more mountainous counties. The variety we have here figured is more tender and delicate in structure than the Derbyshire specimens in Mr. Dickson's *Dried Plants*, insomuch that some have thought them distinct species. We cannot, however, discover a good specific difference.

Root creeping. Frond about a foot high, upright, distinguished from all our other Polypodies by being composed of three branches, which are very gracefully displayed, and each more or less perfectly bipinnate, the pinnulæ drooping, bluntish, and more or less toothed. The whole are of a pleasant green. Dots of fructification pretty regularly arranged, and at length confluent.

Neckera crispa.

July 1. 1797. Published by J. Sowerby.

HYPNUM crispum.

Crisped Hypnum.

CRYPTOGAMIA Musci.

GEN. CHAR. *Caps.* with a lid. *Veil* smooth. *Fruit-stalk* from a lateral tubercle invested with scales.

SPEC. CHAR. Frond ascending, branched, pinnate. Leaves undulated, compressed. Beak of the capsule curved.

SYN. Hypnum crispum, *Linn. Sp. Pl.* 1589. *Huds.* 496. *With.* 847. *Hull.* 269. *Dicks. H. Sicc. fasc.* 2. 23.

H. pennatum, undulatim crispum, setis et capsulis brevibus. *Dill. Musc.* 273. *t.* 36. *f.* 12.

H. repens crispum, ramulis compressis, filicinorum more dispositis. *Raii Syn.* 89.

THIS most elegant moss grows plentifully in shady mountainous places, more particularly on a chalky or limestone soil. We have never happened to meet with the fructification in England, till last May, in the rocky woods opposite Bristol Hot-wells.

The fronds grow in an oblique position, close together, forming thick elastic tufts, or patches, of a bright pleasant green. They are perennial, evergreen, branched, pinnate, compressed. The beautifully shining leaves are imbricated in two rows, and transversely wrinkled. The reddish elliptical capsules grow on solitary lateral stalks, arising from a slender scaly bud. Their veil is pale and slender; their beak long and curved. Their orifice is fringed with an outer row of 18 denticulated pale lanceolate teeth, and an inner row of as many longer very slender filaments.

Augt 1st 1799. Published by J.t Sowerby London.

PHASCUM crispum.

Curled Clustered Phascum.

CRYPTOGAMIA Musci.

GEN. CHAR. *Caps.* ovate, without any separate lid. *Veil* minute, deciduous.

SPEC. CHAR. Stem-leaves minute, scattered; floral-leaves clustered, elongated, pointed, incurved, entire.

SYN. Phascum crispum. *Hedw. Musc. v.* 1. *t.* 9.

DISCOVERED at Ampthill, Bedfordshire, in March 1799, by the Rev. Mr. Abbot, to whom we are obliged for this specimen.

From Hedwig's excellent figure and description, there can be no doubt of its being his *P. crispum*, though he describes some of the floral leaves more incurved and contorted than we have found them.

This little moss grows in rather fertile places, especially (as Hedwig says) upon old mole-hills. It flowers in the beginning of winter, and ripens its capsules, with us at least, in April.

The roots are fibrous and much branched. Stems about a quarter of an inch high, simple or branched, spreading, clothed with minute, scattered, entire leaves, and crowned with a thick tuft of much longer, taper-pointed leaves, whose points are often incurved or contorted, especially when dry. The numerous capsules stand almost sessile among these long leaves, and are elliptical, with a minute beak, and a slender tapering veil

Viola odorata.

VIOLA odorata.

Sweet Violet.

PENTANDRIA Monogynia.

GEN. CHAR. *Cal.* 5-leaved. *Petals* 5, irregular, the lowermost spurred behind. *Caps.* superior, of one cell, with three valves.

SPEC. CHAR. Stem none. Scyons creeping. Leaves heart-shaped, smoothish as well as the footstalks. Calyx obtuse.

SYN. Viola odorata. *Linn. Sp. Pl.* 1324. *Huds.* 378. *With.* 260. *Hull.* 191. *Relh.* 329. *Sibth.* 83. *Abbot.* 190. *Curt. Lond. fasc.* 1. *t.* 63.

V. martia purpurea. *Raii Syn.* 364.

THE favourite Violet, so justly esteemed for its delightful fragrance, is, like many other most desirable plants, frequently found wild, and easily cultivated in a garden. It requires only a moderate degree of shade and moisture, and commonly flowers in March or April. A white-flowered variety sometimes occurs, and a double one is preferred by florists, not merely because it is unnatural, but on account of its richer scent.

Root perennial, rather woody. Stem none. Scyons very long, prostrate, and creeping, leafy, generally not producing flowers till the second year; but that rule is not without exception. Leaves on longish upright nearly smooth footstalks, heart-shaped, serrated, smooth, very slightly downy beneath. Stipulæ in pairs, lanceolate, dentate, pale. Flower-stalks taller than the leaves, simple, smooth, bearing a pair of narrow bracteæ above their middle, and one nodding dark purple irregular flower. Calyx smooth. Spur short and blunt. Lateral petals marked with a hairy line on the inside. Stamina flat. Antheræ orange-coloured, dilated, approaching each other, but scarcely connected, so that few persons would look for this genus in the class *Syngenesia*. The seeds are several, and roundish.

Viola canina.

VIOLA canina.

Dog's Violet.

PENTANDRIA Monogynia.

GEN. CHAR. *Cal.* 5-leaved. *Petals* 5, irregular, the lowermost spurred behind. *Caps.* superior, of one cell, with three valves.

SPEC. CHAR. Stem at length ascending, channelled. Leaves oblong-heartshaped. Calyx acute.

SYN. Viola canina. *Linn. Sp. Pl.* 1324 *Huds.* 379. *With.* 261. *Hull.* 191. *Relh.* 329. *Sibth.* 83. *Abbot.* 190. *Curt. Lond. fasc.* 2. *t.* 61.

V. martia inodora sylvestris. *Raii Syn.* 364.

AFTER the flowers of the Sweet Violet are gone, every copse, heath, and shady dell is decorated, for two or three months, with the paler and less welcome blossoms of the *Viola canina*, which are totally without smell. The epithet *canina* seems to have been given to it, as to the hedge rose, to express a degree of inferiority or unworthiness, as if a dog were always a less respectable or useful animal than his master.

This species varies, like the preceeding, in the colour of its blossoms: the whole herb is moreover extremely variable in size, and the leaves in form: we are almost persuaded that our *V. lactea*, *t.* 445, is only a variety of this, for culture brings them very closely together.

Root perennial, somewhat woody. The first flowers are radical; but several branched angular leafy stems soon spring forth, which continue growing and bearing numerous flowers for several weeks. Leaves heart-shaped or oblong, crenate, smooth; their foot-stalks smooth, somewhat dilated at the top. Stipulæ fringed. Flower-stalks axillary, solitary, erect, square, bearing two awl-shaped bracteæ in the upper part, and one nodding blue flower. Antheræ scarcely cohering. Calyx-leaves acute. Stigma gibbous. Capsule rather more oblong than in the Sweet Violet. Seeds roundish.

Leucojum aestivum.

LEUCOJUM æstivum.

Summer Snowflake.

HEXANDRIA Monogynia.

GEN. CHAR. *Cor.* superior, bell-shaped, of 6 petals, thickened at their summit. *Stigma* simple. *Stamina* equal.

SPEC. CHAR. Spatha many-flowered. Style club-shaped.

SYN. Leucojum æstivum. *Linn. Sp. Pl.* 414. *With.* 331. *Curt. Lond. fasc.* 5. *t.* 23. *Jacq. Austr. t.* 203.

L. bulbosum majus polyanthemum. *Ger. em.* 148.

MR. CURTIS first added this plant to the catalogue of English natives, having found it close to the Thames' side below London in several places. Mr. Gough has also observed it near Kendal. Our specimen was gathered at Reading by Mr. Murray of that place. We have lately been informed by Mrs. Cobbold, that the Summer Snowflake is a troublesome weed in old pastures, which probably have never been broken up, at Little Stonham, Suffolk. After all these authorities, we can no longer refuse it a place in the *Flora Britannica*. It is perennial, and flowers in May.

The root is a roundish bulb, small in proportion to the herbage. Leaves all radical, numerous, sheathing, erect, a foot and half or more in length, blunt, keeled, of a bright green. Stalk about as long as the leaves, two-edged, many-flowered. Spatha lanceolate, concave, green, erect. Partial flower-stalks simple, nodding. Flowers inodorous, of 6 snow-white petals, each marked with a green prominent spot near the tip. Antheræ obtuse, bursting by two pores at the summit. Style club-shaped, about equal to the stamina in length, with an acute stigma. Capsule elliptical, blunt, of three cells, containing several large globose seeds.

This is an ornamental plant, and is frequently cultivated in country gardens. It increases fast by offsets from the root.

The uniformity of its petals distinguishes the genus *Leucojum* from *Galanthus*. See our *t.* 19.

Fritillaria Meleagris.

Published by S. Curtis, London.

FRITILLARIA Meleagris.

Common Fritillary.

HEXANDRIA Monogynia.

GEN. CHAR. *Cor.* inferior, bell-shaped, of 6 petals, each marked with a honey-bearing cavity above its claw. *Stamina* as long as the corolla. *Cal.* none. *Seeds* flat.

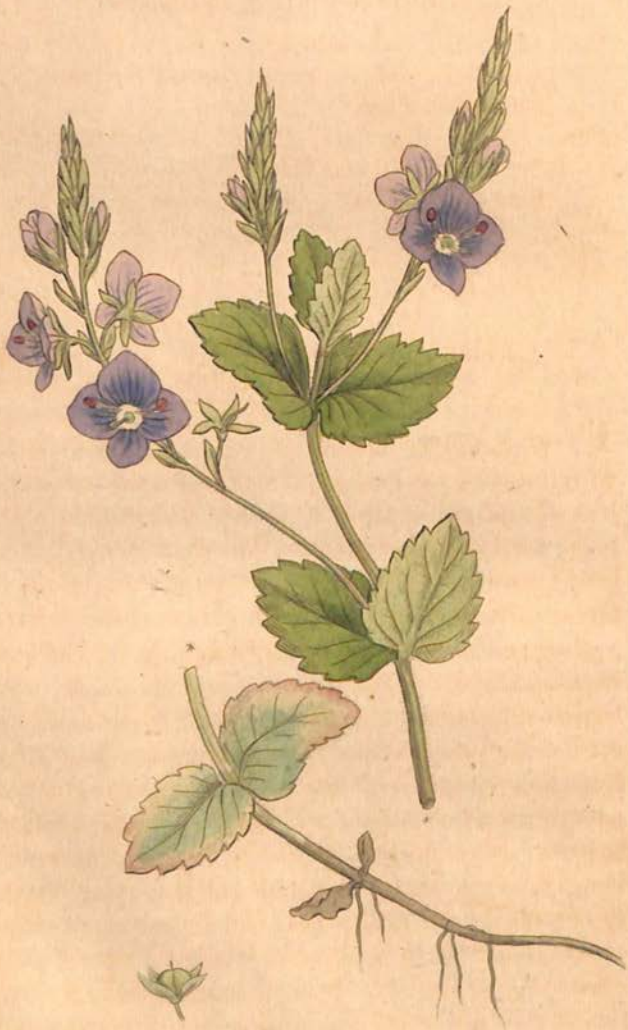
SPEC. CHAR. All the leaves alternate. Stem single-flowered. Nectary linear.

SYN. Fritillaria Meleagris. *Linn. Sp. Pl.* 436. *Huds.* 144. *With.* 335. *Relh.* 137. *Sibth.* 110. *Abbot.* 75. *Curt. Lond. fasc.* 3. *t.* 20. *Dicks. H. Sicc. fasc.* 9. 3.

F. variegata. *Ger. em.* 149.

IF we allow the *Leucojum* a place in a work on British plants, we cannot hesitate about the *Fritillaria*, which, though not noticed by Ray or Dillenius, is very common in various parts of Middlesex, as well as in Suffolk and other counties. Mrs. Cobbold sent it from Little Stonham, with the preceding, *Ornithogalum umbellatum*, and *Colchicum autumnale;* and Mr. Murray, from Reading. It grows in moist pastures or meadows, is perennial, flowering in May, and the blossoms are frequently found white.

Root a small roundish or depressed bulb. Stem erect, about a foot high, perfectly unbranched, annual, round, smooth, leafy. Leaves alternate, almost linear, pointed, somewhat glaucous. One solitary drooping flower of great beauty terminates the stem. It is bell-shaped, of six equal concave petals, elegantly chequered with pale and dark purple. Each petal, just above its base, has a central longitudinal furrow, of a linear shape, not round as in *F. pyrenaica* (which is, like this, common in gardens), the cavity of which is filled with honey. The antheræ are slightly attached by the back, as in the Passion flower. The stigma is three-cleft. Seeds numerous, flat, closely packed in the three-celled capsule.



Veronica Chamædrys.

VERONICA Chamædrys.

Germander Speedwell.

DIANDRIA Monogynia.

GEN. CHAR. *Cor.* inferior, of one petal, four-cleft, wheel-shaped; lower division narrowest. *Capsule* two-celled.

SPEC. CHAR. Clusters lateral. Leaves ovate, sessile, rugged, deeply serrated. Stem marked with two longitudinal hairy lines.

SYN. Veronica Chamædrys. *Linn. Sp. Pl.* 17. *Sm. Fl. Brit.* 22. *Huds.* 6. *With.* 16. *Hull.* 5. *Relh.* 6. *Sibth.* 5. *Abbot.* 4. *Curt. Lond. fasc.* 1. *t.* 2. *Mart. Fl. Rust. t.* 66.

V. Chamædrys sylvestris dicta. *Raii Syn.* 281.

FEW of our wild flowers can vie in elegance and brilliancy with this. In the months of May and June every hedge-bottom and grassy bank is adorned with it. At night, or under the influence of moisture, the corolla closes, but in dry bright weather appears fully expanded in all its beauty; and tho' each flower is short-lived, there is a copious succession.

Root perennial, fibrous, a little creeping. Stems spreading, but slightly raised from the ground, simple, waving, leafy, marked longitudinally, as Linnæus well remarks, with a hairy line on each side. Leaves opposite, sessile, ovate, spreading, deeply and acutely serrated, strongly veined, most hairy about the margin. Clusters axillary, generally opposite, many-flowered, simple, rising above the top of the stem; their common flower-stalk hairy in every direction. Flowers on slender partial stalks with a bractea at their base, large, bright blue, elegantly veined, pale and somewhat flesh-coloured on the outside. Stamina spreading, the style being spontaneously directed first to one and then to the other. Capsule small, inversely heart-shaped.

624.
788.

RANUNCULUS auricomus.

Wood Crowfoot.

POLYANDRIA Polygynia.

GEN. CHAR. *Cal.* five-leaved. *Petals* 5, with a honey-bearing pore on the inside of the claw of each. *Seeds* naked.

SPEC. CHAR. Radical leaves kidney-shaped, three-cleft, crenate; stem-leaves divided to the base into linear segments. Stem many-flowered. Calyx coloured.

SYN. Ranunculus auricomus. *Linn. Sp. Pl.* 775. *Huds.* 242. *With.* 505, *Hull.* 121. *Relh.* 212. *Sibth.* 172. *Abbot.* 121. *Curt. Lond. fasc.* 2. *t.* 41.
R. nemorosus dulcis, secundus Tragi. *Raii Syn.* 248.

A NATIVE of dry woods and shady places, but not so general as most other species of Crowfoot, flowering in April and May.

Root fibrous, perennial. Stems about a foot high, upright, branched, leafy, round, often slightly downy in the upper part. Leaves generally inclined to be downy; the radical ones on long foot-stalks, kidney-shaped, mostly three-cleft, deeply notched, sometimes five-cleft; those on the stem sessile, divided to the base into many linear lobes, which are seldom subdivided or cut. Flowers terminal, erect, solitary, of a bright golden hue. Calyx pale yellow, hairy, scarcely at all reflexed. Nectary a naked pore, not closed by any scale.

In cold backward seasons the real petals are sometimes wanting, the calyx being dilated and more coloured than usual, so as to supply their place.

This species has been called Goldilocks, and Sweet Wood Crowfoot; the epithet *sweet* being intended to express, that it has none of the acrid or caustic flavour usual in the genus *Ranunculus*.

HYPNUM bryoides.

Dwarf Hypnum.

CRYPTOGAMIA Musci.

GEN. CHAR. *Caps.* with a lid. *Veil* smooth. *Fruit-stalk* from a lateral tubercle invested with scales.

SPEC. CHAR. Frond perfectly simple, pinnate, lanceolate. Flower-stalk terminal.

SYN. Hypnum bryoides. *Linn. Sp. Pl.* 1588. *Huds.* 493. *With.* 842. *Hull.* 267. *Relh.* 408. *Abbot.* 244.

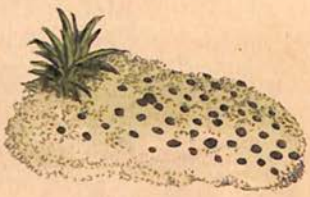
H. taxiforme exiguum, versus summitatem capsuliferum. *Dill. Musc.* 262. *t.* 34. *f.* 1.

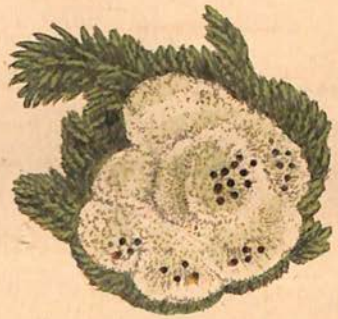
H. repens filicifolium non ramosum, pediculis brevioribus versus foliorum summitatem egredientibus. *Raii Syn.* 88.

Dicranum bryoides. *Sibth.* 279.

THIS humble moss is found producing its capsules very early in the spring in moist shady places, much more rarely than *H. taxifolium*, *t.* 426, with which it nearly agrees in habit, but may at once be distinguished by the fruit-stalk being terminal, not radical. The leaflets are also more remote, and distinctly alternate. The tubercle from which the fruit-stalk grows is naked, having merely two or three little scales at its base. The lid and veil of the capsule are shorter, blunter and more conical. The teeth are in a simple row, therefore Hedwig does not admit this or the neighbouring species into the genus of *Hypnum* as he understands it, but makes a new one called *Fissidens* from the cloven teeth. This seems sufficiently natural; but Dr. Sibthorp unites it, with several very heterogeneous species, under *Dicranum*, another Hedwigian genus.

620
2029





Lecidea muscorum.

LICHEN muscorum.

Moss Lichen.

CRYPTOGAMIA Algæ.

GEN. CHAR. Male, scattered warts.
Female, smooth shields or tubercles, in which the seeds are imbedded.

SPEC. CHAR. Leprous, granulated, grey. Tubercles black, clustered, elevated; at length turbinated.

SYN. Lichen muscorum. *Linn. Meth. Musc.* 36. *With. v.* 4. 7. *Hull.* 285. *Relh.* 424. *t.* 5. *Abbot.* 258. *Dicks. Dr. Pl.* 99.

GATHERED on Gogmagog hills by Mr. Relhan, who first published it as an English plant. Dr. Smith found it about Matlock-bath. Our specimen was sent by Mr. Dawson Turner from Buxton in Norfolk.

This species inhabits damp shady places, and is remarkable for growing upon verdant healthy tufts of mosses, which it clothes, in large patches, with its thin leprous finely granulated grey crust. This crust takes precisely the form of the branches or leaves of the moss underneath, so that the Lichen assumes a branched or leafy appearance. The tubercles are numerous, clustered, elevated by a conical base, quite black, when young slightly margined; in an advanced state convex, and turbinate or top-shaped.

It is a very distinct species, and easily known by its place of growth.

Lecanora cerina?

Pub.d 1.st 1799. by Sowerby & Co. London

LICHEN cerinus.

Waxy Lichen.

CRYPTOGAMIA Algæ.

GEN. CHAR. Male, scattered warts.
Female, smooth shields or tubercles, in which the seeds are imbedded.

SPEC. CHAR. Crustaceous, greyish-white. Shields scattered, elevated, flat, yellow, waxy; the margin and under side white.

SYN. Lichen cerinus. *Dicks. Crypt. fasc.* 3. 14. *With. v.* 4. 24. *Hull.* 291.
Patellaria cerina. *Hoffm. Pl. Lich. t.* 33. *f.* 1.

MR. DICKSON first published this as an English Lichen. Our specimens were gathered at Coltishall in Norfolk, by Mr. D. Turner, and on the trunks of felled oaks lying at Lambeth, by Mr. Sowerby. It is to be found on the bark of trees at all seasons; and has probably been often confounded with *L. subfuscus*, from which however it is truly distinct, though in decay the colour of the shields fades to a brownish hue.

The crust is very thin, but rugged, scarcely mealy, greyish white, and spreads concentrically with a very white edge. The shields are more or less scattered, a little elevated; their disk flat, or rather concave, of the colour of yellow bees-wax, greener when moistened; their margin rounded, entire, broad, white and smooth, in old shields often undulated.

628.
38.

VALERIANA dioica.

Small Marsh Valerian.

TRIANDRIA Monogynia.

GEN. CHAR. *Cal.* none, *Cor.* of one petal, superior, gibbous on one side at the base. *Seed* one.

SPEC. CHAR. Flowers dioecious, with three stamina. Radical leaves ovate; those on the stem pinnate.

SYN. Valeriana dioica *Linn. Sp. Pl.* 44. *Sm. Fl. Brit.* 37. *Huds.* 12. *With.* 65. *Relh.* 13. *Sibth.* 20. *Abbot.* 8. *Curt. Lond. fasc.* 4. *t.* 3. V. sylvestris minor, & V. sylvestris, seu palustris, minor altera. *Raii Syn.* 200.

FREQUENT in moist boggy meadows, flowering in June, and the roots are perennial.

Root creeping. Stem 6 or 8 inches high, erect, simple, striated. Radical leaves ovate, on foot-stalks, undivided; those on the stem opposite, pinnate, or rather pinnatifid in a lyrate manner: all of them smooth, and generally entire; but this last circumstance can by no means be considered as a part of the specific character, though Linnæus has admitted it; for even in his own specimens the leaves are decidedly serrated. A forked cymose panicle terminates the stem. The flowers are of a pale blush-colour, male on one root, female on the other; for although some flowers are frequently found with stamina and pistilla, both organs are scarcely ever perfected in the same individual. The male plant is always smaller and less robust, having a more transient function to perform than the other. The seed is naked, below the flower, furnished when ripe with a radiated feathery crown.

Carex divulsa.

CAREX divulsa.

Grey Carex.

MONOECIA Triandria.

GEN. CHAR. Male, *Catkin* imbricated *Cal.* of one scale. *Cor.* none. Female, *Catkin* imbricated. *Cal.* of one scale. *Cor.* inflated, permanent. *Seed* triangular, invested with the corolla.

SPEC. CHAR. Spike twice compounded, elongated, often branching at the base; the lower spikelets, remote; the uppermost clustered. Seeds nearly erect.

SYN. Carex divulsa. *Gooden. Tr. Linn. Soc. v. 2. 160. With. 93. Hull. 205. Sibth. 28. Abbot. 203.*
C. canescens. *Huds. 405. Relh. 351.*
Gramen cyperoides spicatum minus, spica longa divulsa seu interrupta. *Raii Syn. 424.*

CAREX *divulsa*, like most of its family, grows in moist places, and more particularly in shady situations; hence its pale greyish-green hue, which has given rise to the English name. The specimen here delineated was found by the late Mr. Rayer, between Rochester and Gravesend, flowering in May. It is not one of the most common kinds.

The root is perennial, fibrous, not creeping. Stem a foot or more in height, weak, and partly reclining, triangular, with sharp rough angles. Leaves several, sheathing, rough, taller than the stem, with white membranous lacerated sheaths and stipulæ. Spike erect, elongated, interrupted, often branched at the bottom. Spikelets alternate, bracteated, nearly sessile, upright, ovate; the lower ones remote; the upper close together. The lower flowers in every spikelet are female, the upper male. Scales of a rusty brown, with a green keel and white edge, sharply pointed. Antheræ very acute. Style short, thick, with two long downy stigmas.

This had long been taken for the *C. canescens* of Linnæus, till the arrival of his herbarium in England shewed them to be very different. The description of Ray leaves no doubt of its being his plant above quoted, but Dillenius in the third edition of the *Synopsis* having added a wrong reference to Lœsel, his error has been laid to the charge of Ray, as in many other instances.

Doronicum plantagineum.

DORONICUM Pardalianches.

Great Leopard's-bane.

SYNGENESIA Polygamia-superflua.

GEN. CHAR. *Recept.* naked. *Down* simple. *Calyx-scales* in two rows, equal, longer than the disk. *Seeds* of the radius beardless.

SPEC. CHAR. Leaves heart-shaped, denticulate; the radical ones on foot-stalks; the rest embracing the stem.

SYN. Doronicum Pardalianches. *Linn. Sp. Pl.* 1247. *Lightf.* 485. *Huds.* 650. *With.* 732. *Hull.* 185. *Scop. Carn. v.* 2. 174.

MR. LIGHTFOOT observed this plant in several places in the Lowlands of Scotland, but always near houses, so that he suspected it to be only a naturalized species. Dr. Withering mentions it as growing on the banks of the Severn, below Bridgenorth, and in some other places. Our specimen was gathered by the road side near Saling-hall, Essex, by T. Walford, Esq. who believes it certainly never to have been planted there. Yet if truly indigenous, so conspicuous a plant would surely not have escaped the notice of Ray and his correspondents.

It is perennial, and flowers in May. The crown of the root is woolly. Stem two or three feet high, branched, furrowed, hairy, the uppermost hairs glandular. Leaves more or less hairy, soft and pliable, irregularly and slightly toothed, veiny; the radical ones large, heart-shaped, on long foot-stalks; the stem-leaves more ovate, sessile. Flowers large, solitary at the end of each branch. The calyx and receptacle both conical; the scales or leaves of the former numerous, linear, in two rows, all equal, much longer than the disk of the flower, and indeed almost as long as the radius, which consists of nearly an equal number of linear pale-yellow female florets, striped externally with green, and notched at the tip. Their seeds have no wing or down; while those of the tubular florets in the disk are crowned with long rough bristles. Scopoli, from whom the excellent description in Lightfoot is almost entirely taken, observes, that it requires only a month to form and ripen the seeds.

The root has been supposed a poison to beasts of prey, but its qualities are very problematical.

Orchis maculata.

ORCHIS mascula.

Early Purple Orchis.

GYNANDRIA Diandria.

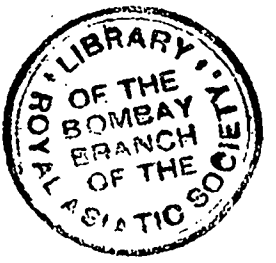
GEN. CHAR. *Nectary* a spur behind the flower.

SPEC. CHAR. Bulbs undivided. Lip of the nectary in four crenate lobes: spur blunt. Outer petals reflexed.

SYN. Orchis mascula. *Linn. Sp. Pl.* 1333. *Huds.* 383. *With.* 24. *Hull.* 194. *Relh.* 333. *Sibth.* 10. *Abbot.* 192. *Curt. Lond. fasc.* 2. *t.* 62. *Dicks. H. Sicc. fasc.* 11. 14. *With. Med. Bot. t.* 90.
O. morio mas foliis maculatis. *Raii Syn.* 376.

THIS is the first Orchis that appears in the spring, and one of the most common. Pastures, groves, and shady dells are adorned with its purple blossoms about the end of April or the beginning of May. Then the *Cardamine pratensis*, the *Saxifraga granulata*, or the Cowslip, combine with it to form many a rustic nosegay, while the *Adoxa*, diffusing its musky scent in vain, is trampled under foot, in the search for these more ostentatious flowers.

The root consists of two large oval bulbs, and is one of those most used for making Salep. Leaves radical, lanceolate, broad, smooth, shining, generally more or less spotted with purple stains. Stalk a foot high, terminating in a large loose upright spike of purplish-red flowers, with bracteæ of the same hue. Their spur swells towards the point which is obtuse, and curved upwards. The lip is broad, crenate, with two large side-lobes, and two intermediate small ones, its base spotted. Three inner petals cohering in a vaulted form; the two outer ones reflexed upwards. Mr. Curtis in his account of this plant, has very admirably illustrated the structure and œconomy of the tribe to which it belongs. Jacquin's figure, *Ic. rar. v.* 1. *t.* 180, if really intended for this species, does not give a correct idea of its usual appearance.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Orchis
maculata.

ORCHIS maculata.

Spotted Palmate Orchis.

GYNANDRIA Diandria.

GEN. CHAR. *Nectary* a spur behind the flower.

SPEC. CHAR. Bulbs palmate, spreading. Spur rather shorter than the germen: lip three-cleft, flat. Outer petals divaricated.

SYN. Orchis maculata. *Linn. Sp. Pl.* 1335. *Huds.* 385. *With.* 27. *Hull.* 195. *Relh.* 334. *Sibth.* 11. *Abbot.* 193.

O. palmata speciosiore thyrso, folio maculato. *Raii Syn.* 381.

MOST common in meadows or moist pastures, but it occurs also in groves, and sometimes in dry barren ground, flowering towards the end of June or beginning of July.

The bulbs in this species are palmate as in *O. conopsea.* Stem leafy, simple, 12 or 18 inches high, round, solid. Leaves lanceolate, keeled, spotted on both sides with scattered purple blotches. Spike ovate, various in size. Bracteæ scarcely longer than the germen, purplish. Flowers very variable in size, as well as in the purple lines and spots on the nectary. In general the ground of the whole flower is white tinged with a purple blush, and the spots are deep purple, making a very elegant appearance when closely examined. The lip is flat, with two large rounded side-lobes, and an intermediate sharp small point. Stamina green.

The only species with which this can be confounded is the *latifolia,* but that is easily known by the great length of its bracteæ, and its uniformly green leaves.

Linnæus in *Flo. Suec.* remarks that the bulb which is destined to bear the plant of next year is so heavy as to sink in water, while that from which the present herb springs is light enough to swim. This is plainly his meaning, which is not so clearly expressed in Dr. Withering's concise translation as usual with him.

Chenopodium maritimum.

Sept 1 1798 Published by J.T. Smith by J.T. Smith

CHENOPODIUM maritimum.

Sea Goosefoot.

PENTANDRIA Digynia.

GEN. CHAR. *Cal.* 5-cleft, inferior. *Cor.* none. *Seed* 1, lenticular, invested with the closed five-sided calyx.

SPEC. CHAR. Leaves awlshaped, semicylindrical. Flowers axillary, sessile.

SYN. Chenopodium maritimum. *Linn. Sp. Pl.* 321. *Huds.* 107. *With.* 273. *Hull.* 57. *Relh.* 106. *Dicks. H. Sicc. fasc.* 4. 7.

Blitum Kali minus album dictum. *Raii Syn.* 156.

A VERY frequent plant on the sea-shore, more especially where the soil is muddy, flowering about July and August.

Root fibrous, annual, small in proportion to the whole herb. Stem erect, much branched, roundish, leafy. Leaves alternate, semicylindrical, sharpish, smooth, succulent, abounding with a salt juice. Flowers sessile, clustered, green, with a pair of bracteæ to each. Stamina shorter than the calyx. Seeds minutely striated, of a deep shining black.

Mr. Doody has observed that this herb is an "excellent boiled sallad," a term we are not adepts enough in cookery to understand. The experiment may easily be made by those who reside near the coast. It abounds, like many other maritime plants, with alkalinesalt, and is one of those which are indiscriminately collected in the warmer parts of Europe for the manufactory of glass.

Salsola Kali.

Pub. 1790 by J. White

SALSOLA Kali.

Prickly Saltwort.

PENTANDRIA Digynia.

GEN. CHAR. *Cal.* 5-cleft; its base capsular. *Cor.* none. *Seed* 1, with spiral cotyledons.

SPEC. CHAR. Herbaceous, procumbent. Leaves awl-shaped, spinous, rough. Flowers axillary. Calyx margined.

SYN. Salsola Kali. *Linn. Sp. Pl.* 322. *Huds.* 107. *With.* 278. *Hull.* 57. *Dicks. H. Sicc. fasc.* 12. 14. *Woodv. Med. Bot. t.* 143.
Kali spinosum cochleatum. *Raii Syn.* 107.

VERY abundant on all sandy sea-shores, flowering copiously in July.

Root annual, fibrous. Stem very much branched, spreading in all directions, and forming a large round bush, almost inaccessible on account of the numerous prickly leaves, which are alternate, spreading, awl-shaped, channelled, dilated at the base, rough, each tipped with a very sharp spine. Flowers axillary, solitary, sessile, with three bracteæ, resembling the leaves at the base of each. Leaves of the calyx externally dilated into a broad reddish waved margin; internally closely approaching each other, and covering the seed like a capsule. The seed is top-shaped, and its cotyledons curiously twisted into a spiral form; by which character this genus is essentially distinguished from *Chenopodium*, and all others of the same natural order.

Salsola Kali contributes more generally to the manufacture of Soda, for making glass, than *Chenopodium maritimum*, but is not reckoned equal to some other species of *Salsola*.

Chenopodium fruticosum.

SALSOLA fruticosa.

Shrubby Saltwort.

PENTANDRIA Digynia.

GEN. CHAR. *Cal.* 5-cleft; its base capsular. *Cor.* none. *Seed* 1, with spiral cotyledons.

SPEC. CHAR. Erect, shrubby. Leaves semicylindrical, bluntish, without spines.

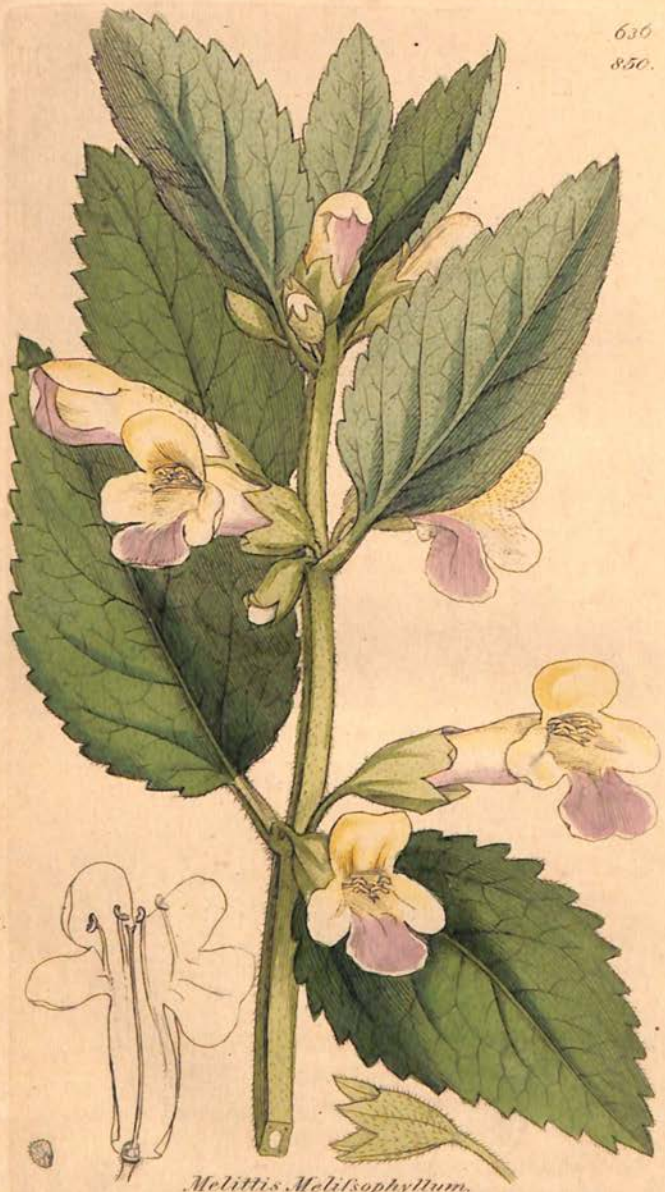
SYN. Salsola fruticosa. *Linn. Sp. Pl.* 324. *Huds.* 108. *With.* 278. *Hull* 57.

Blitum fruticosum maritimum, Vermicularis frutex dictum. *Raii Syn.* 156.

THE first person mentioned as the discoverer of this plant in England is the famous Sir Thomas Brown, M. D. of Norwich, so well known by his *Religio Medici* and other learned productions. He found it on the Norfolk coast, where it still grows, about Wells and Clay, as well as in Suffolk. Mr. Lambert favoured us with wild specimens from Weymouth.

This forms an elegant evergreen shrub, flowering in July and August, not unworthy of a place in gardens. It is propagated by layers, scarcely, if at all, by cuttings. The stem is about 2 feet high or more, erect, branched, woody; the branches also erect, and thickly clothed with alternate, sessile, semicylindrical, bluntish, succulent, rather glaucous leaves. Flowers inconspicuous, sessile, solitary, green, with 3 small bracteæ. Seed top-shaped, its cotyledons less convoluted than those of the last described species.

The leaves have an herbaceous flavour, with a slight degree of salt and some acrimony.



Melittis Melissophyllum.

Sept. 1. 1779. Published by P. Dewdney Leadenhall.

MELITTIS grandiflora.

Purple and white Bastard-Balm.

DIDYNAMIA Gymnospermia.

GEN. CHAR. *Cal.* unequal, wider than the tube of the corolla. *Cor.* upper lip flat; lower three lobed, crenate. *Antheræ* cohering cross-wise.

SPEC. CHAR. Calyx four-lobed.

SYN. Melittis Melissophyllum. *Curt. Lond. fasc.* 6, *t.* 39. *Mill. Illustr. t.* 52.

Melissa Fuchsii flore albo. *Ger. em.* 690.

WITH great pleasure we here confirm the suspicion advanced in p. 577 of this work, that there are two species of *Melittis* natives of England. The wild specimen here delineated was gathered in the middle of June last by Mr. D. Turner and Mr. Sowerby, who found the plant in great plenty about a mile from Ashburton in the road towards Plymouth, and also in Cornwall. This is what Mr. Curtis has published as the real *M. Melissophyllum*. It is indeed not very different from that species in habit, scent, or form of leaves; but the flowers afford sufficient marks of distinction. The calyx is four-lobed, having on each side 2 lateral not vertical lobes, sometimes notched, but more generally entire. Corolla larger than in the other kind, white, with a pale tinge of yellow in the upper part, the upper lip slightly emarginate, the lower marked with a large undivided purple or violet-coloured spot, surrounded by a white margin.

This is an ornamental plant, easily cultivated in a moist or shady situation.

637.
.052.

Brassica oleracea.

Sept.r 1.1799 Published by J.r Sowerby.

BRASSICA oleracea.

Sea Cabbage.

TETRADYNAMIA Siliquosa.

GEN. CHAR. *Cal.* erect, partly cohering. *Seeds* globular. *Pod* nearly cylindrical; the partition prominent, awl-shaped. *Glands* 4.

SPEC. CHAR. Root stem-like, cylindrical, fleshy. All the leaves smooth, glaucous, waved and lobed.

SYN. Brassica oleracea. *Linn. Sp. Pl.* 932. α *Huds.* 289. *With.* 591. *Hull.* 148. *Freeman Ic. t.* 4, 5.

B. maritima arborea, seu procerior, ramosa. *Raii Syn.* 293.

THE common garden Cabbage in its wild state grows on cliffs by the sea-side at Dover, as well as on the Welch, Cornish, and Yorkshire coasts; but has so seldom been faithfully delineated, that we scarcely know where to refer to a certain figure of it, except in those exquisite elaborate plates published by Strickland Freeman, Esq. and said to be the performances of two Ladies, who certainly rank as artists in the first line. Mr. Sowerby drew the present figure at King's Cove, in his late excursion to Devonshire and Cornwall, with Mr. D. Turner, in June last.

Root biennial, raised above the ground in the form of a cylindrical stem, from 6 to 18 inches high, marked with scars from the insertion of the fallen leaf-stalks. Leaves large, various in form, often lyrate, waved and sinuated, all glaucous and smooth; the uppermost oblong, undivided. Flowers in terminal corymbi lengthened out into long spikes, large, lemon-coloured. Pods smooth, with a swelling unequal surface. Seeds large, globular.

The numerous garden varieties of this useful plant are sufficiently well known. The Swedish turnep, as it is called, is esteemed by Linnæus a variety of *B. oleracea*. It is certainly distinct enough in species from *B. Rapa*.

Tragopogon porrifolius.

TRAGOPOGON porrifolius.

Purple Goat's-beard.

SYNGENESIA Polygamia-æqualis.

GEN. CHAR. *Recept.* naked. *Cal.* simple, of many leaves. *Down* feathered.

SPEC. CHAR. Calyx half as long again as the corolla. Leaves entire, straight. Flower-stalk swelling upwards.

SYN. Tragopogon porrifolium. *Linn. Sp. Pl.* 1110. *Huds.* 335. *With.* 672. *Hull.* 172.

T. purpureum. *Raii Syn.* 171. *Ger. em.* 735.

GATHERED by Mr. Sowerby in the meadows below St. Vincent's rocks, Bristol. It is biennial and flowers in May and June.

Root long, tapering. Whole plant abounding with a milky juice, which soon turns to a brown resin from the evaporation of its watery particles. Herb smooth, glaucous, about 4 feet high. Stem round, erect, branching, leafy. Leaves lanceolate, scarcely at all undulated, ending in a tapering straight point. Flowers terminal, solitary, the stalk which supports them tapering from the calyx downwards. Calyx-leaves equal, linear-lanceolate, almost twice as long as the corolla, which is of a dull purple hue. Antheræ darker. A few hairs may be observed at the orifice of the tube of each floret. The feathery crown of the seed, at first sessile, is soon raised on a long taper stalk, as in the other species.

The root, when boiled or stewed, has a mild sweetish flavour, and used formerly to be much more cultivated for the table than it is at present. The flowers close early in the day.

Heloscíadum
nodiflorum.

SIUM nodiflorum.
Procumbent Water Parsnep.

PENTANDRIA Digynia.

GEN. CHAR. *Fruit* nearly oval, compressed, striated. *Involucrum* general and partial, of many leaves. *Petals* heart-shaped, uniform.

SPEC. CHAR. Leaves pinnated; leaflets ovate, equally serrated. Umbels sessile, opposite to the leaves. Stem procumbent.

SYN. Sium nodiflorum. *Linn. Sp. Pl.* 361. *Huds.* 119. *With.* 299. *Hull.* 61. *Relh.* 116. *Sibth.* 96. *Abbot.* 62. *Woodv. Med. Bot. t.* 182.
S. umbellatum repens. *Raii Syn.* 211.

FREQUENT in ditches and rivulets, as in St. George's Fields and similar situations, flowering about July and August.

Root perennial, creeping. Stems procumbent or floating, often creeping, various in length, branched, round, hollow, slightly striated, smooth, leafy. Leaves pinnate, of from five to nine sessile ovate leaflets, which are all neatly and equally serrated, the odd one largest, and sometimes united with the neighbouring pair. Umbels lateral, opposite to the leaves, solitary, nearly sessile, each of above 5 or 7 divaricated rays bearing little umbels of 12 or more flowers. General involucrum of but one leaf, and often entirely wanting. Partial of several ovate concave leaves as long as the partial flower-stalks. Flowers small, greenish-white, with slight traces of a calyx. Fruit ovate.

This plant has been recommended in cutaneous disorders, and on that account has been admitted into the London Pharmacopœia and Dr. Woodville's valuable work. Dr. Withering prescribes 3 large spoonfuls of the juice twice a day in milk. It cannot be confounded with *S. angustifolium* (see *t.* 139), as in that the stem is erect, leaves unequally cut, umbels on long flower-stalks, with a general involucrum of many leaves.

Fl. Dan. t. 247. is certainly *S. angustifolium*, not *nodiflorum*.

FUCUS kaliformis.

Saltwort Fucus.

CRYPTOGAMIA Algæ.

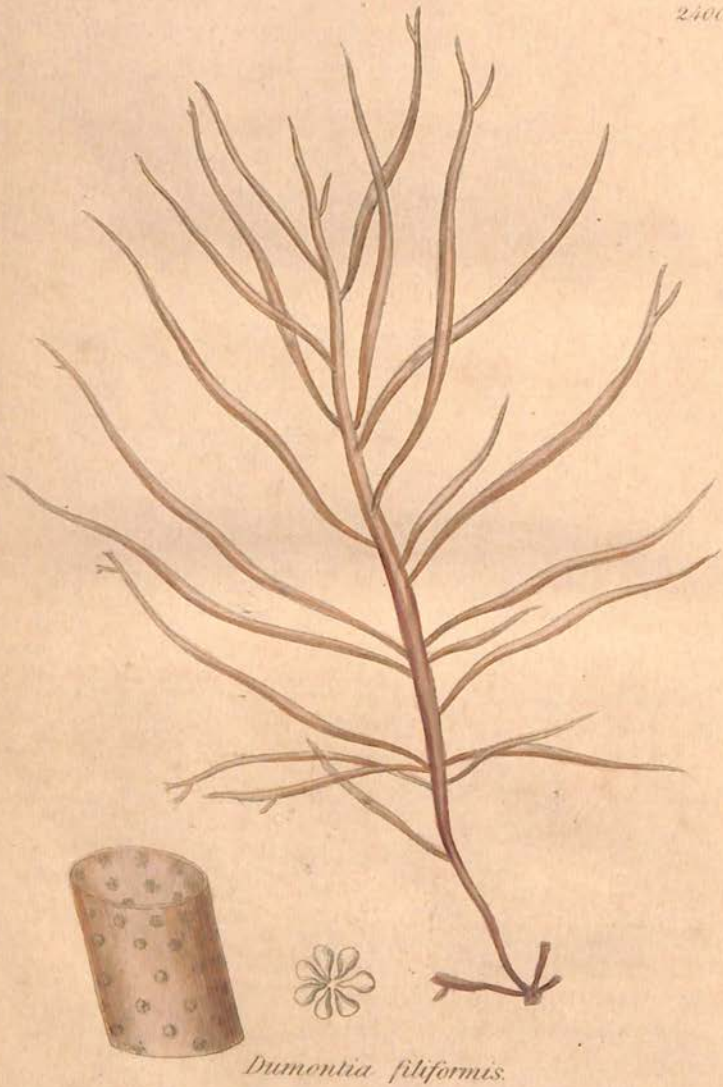
GEN. CHAR. *Seeds* produced in clustered tubercles, which burst at their summits.

SPEC. CHAR. Frond cylindrical, rather gelatinous, tubular, much branched. Branches scattered: the ultimate ones partly whorled, awl-shaped, bluntish.

SYN. Fucus kaliformis. *Gooden. & Woodw. Tr. of Linn. Soc. v. 3. 206. t. 18. With. v. 4. 89. Hull. 325.*

MR. WOODWARD first ascertained this as a new species from specimens found on the beach at Yarmouth. Mr. D. Turner and Mr. Sowerby detected the same growing at Falmouth in June, when the fructification was observed to be in perfection. Mr. Stackhouse gathered it at Weymouth.

The frond is fixed to the rocks by a small callous expansion, and rises commonly to 6 inches or more in height, being much branched, round, hollow, various in thickness, in substance tender and almost gelatinous, in colour of a pale transparent reddish brown, approaching to a flesh-colour. The branches in general grow without any order, the subdivisions of them only being opposite or often whorled. These last are short, awlshaped, blunt, constricted here and there as if obscurely jointed, and bear the fruit in small prominent round tubercles. It is an elegant species, and very much resembles the form of a *Salsola* or *Salicornia*.



Dumontia filiformis.

Pub.d 1799 Richard Taylor & Co. London

ULVA purpurascens.

Purplish Laver.

CRYPTOGAMIA Algæ.

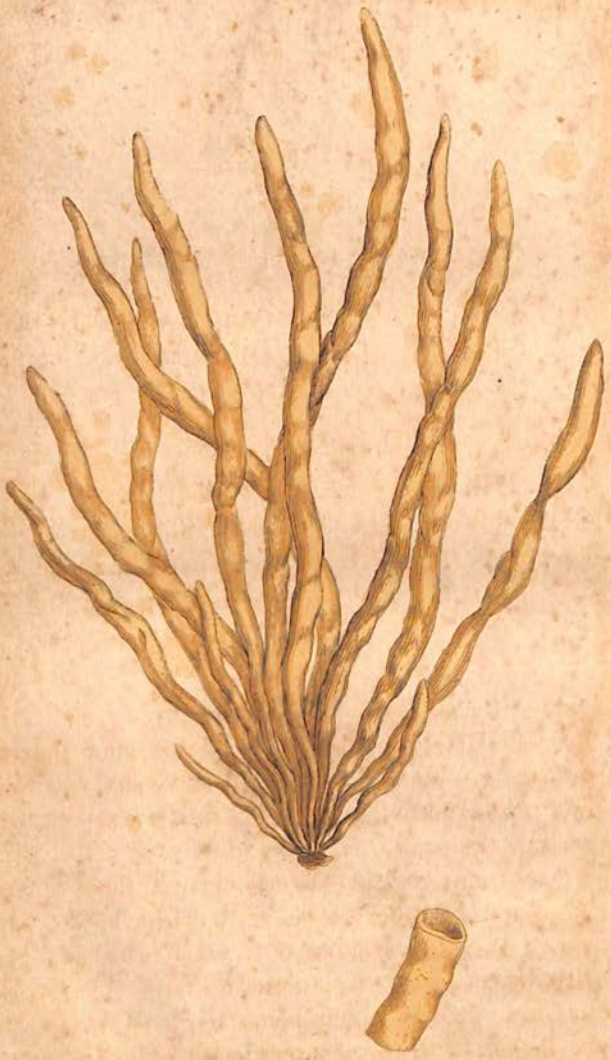
GEN. CHAR. *Frond* membranous or gelatinous. *Seeds* solitary, scattered throughout its substance, under the cuticle.

SPEC. CHAR. Tubular, branched, roundish. Branches mostly opposite, simple, acute.

SYN. Ulva purpurascens. *Huds.* 569. *With. v.* 4. 126. *Hull.* 312. *Woodw. Tr. of Linn. Soc. v.* 3. 52.

GOOD specimens of this *Ulva* in fructification were gathered at Falmouth by Mr. D. Turner and Mr. Sowerby, June 15, 1799. It is easily ascertained by Mr. Hudson's original description, but no figure of it has yet appeared; for, though the plate of Lightfoot's *Fucus verticillatus* is quoted for it in p. 661 of the *Flora Anglica*, it cannot be supposed to belong to it.

Ulva purpurascens grows to the height of about six inches, and is of a light purplish brown colour, though in our specimens scarcely purple enough to justify the name. The main frond is very taper at the base and summit, swelling in the middle, roundish, tubular, juicy, set with numerous, almost always simple, branches, two or three inches long, and of a similar figure, generally opposite. Mr. Hudson describes them as inclined to point in two directions. The seeds are scattered under the cuticle without any order, small, and of a blackish colour.



ULVA fistulosa.

Pipe Laver.

CRYPTOGAMIA Algæ.

GEN. CHAR. *Frond* membranous or gelatinous. *Seeds* solitary, scattered throughout its substance, under the cuticle.

SPEC. CHAR. Gelatinous, tubular, uniform, simple, bluntish, a little zigzag, yellowish brown.

SYN. Ulva fistulosa. *Huds.* 569. *With. v.* 4. 125. *Hull.* 313. *Woodw. Tr. of Linn. Soc. v.* 3. 52.

GATHERED at Falmouth at the same time with the preceding. No author seems to have described it, except after Mr. Hudson, who ascribes to it a creeping root, which we have not seen.

The fronds grow in clusters, upright, three or four inches high, and are quite simple, cylindrical, hollow within, but closed and rather bluntish at the top, a little uneven or zigzag throughout, tapering at the base. Their colour is an uniform yellowish pale brown. Seeds minute, scattered, as in the other species, throughout the tender substance of the plant, and to be discovered chiefly by their darker hue.

643.
752.

Papaver Argemone.

PAPAVER Argemone.

Long-rough-headed Poppy.

POLYANDRIA Monogynia.

GEN. CHAR. *Cal.* two-leaved. *Petals* four. *Stigma* radiated. *Caps.* superior, discharging its seeds by pores under the stigma.

SPEC. CHAR. Capsules club-shaped, bristly. Stem leafy, many-flowered.

SYN. Papaver Argemone. *Linn. Sp. Pl.* 725. *Huds.* 230. *With.* 486. *Hull.* 116. *Relh.* 202. *Sibth.* 165. *Abbot.* 116. *Curt. Lond. fasc.* 5. *t* 38.

P. laciniato folio, capitulo hispido longiore. *Raii Syn.* 308.

A NATIVE of corn-fields and waste ground, more especially on a gravelly or sandy soil, flowering in June. This, though not a very general species, is much more so than *P. hybridum* published in our first volume.

The root is small and annual. Herb slender and delicate, varying in size. Stem alternately branched, round, leafy, clothed with bristles which are less closely pressed to the bark than those of *P. hybridum*. Leaves bipinnate and cut. Flowers solitary, terminating each branch, small, generally of a pale or dull scarlet colour, and extremely short-lived. I have once found them double, in which case they lasted several days. In general they scarcely continue half a day. Calyx bristly, deciduous. Petals narrow, obovate, often jagged. Stamina, as Mr. Curtis well observes, dilated upwards; in *P. hybridum* they are linear-lanceolate. Antheræ on a little foot-stalk. Pollen blue. Capsule oblong, swelling upwards, furrowed, most bristly in the upper part. Stigma of from 3 to 6 rays, downy.

Papaver dubium

PAPAVER dubium.

Long-smooth-headed Poppy.

POLYANDRIA Monogynia.

GEN. CHAR. *Cal.* two-leaved. *Petals* four. *Stigma* radiated. *Caps.* superior, discharging its seeds by pores under the stigma.

SPEC. CHAR. Capsules smooth, oblong. Stem many-flowered, hairy. Bristles on the flower-stalks close-pressed. Leaves bipinnatifid.

SYN. Papaver dubium. *Linn. Sp. Pl.* 726. *Huds.* 230. *With.* 487. *Hull.* 116. *Relh.* 203. *Sibth.* 165. *Abbot.* 116. *Curt. Lond. fasc.* 5. *t.* 37.
P. laciniato folio, capitulo longiore glabro. *Raii Syn.* 309.

NOT uncommon on a sandy soil, flowering in June, and the root is annual.

This is a larger plant than the preceding, and at once distinguished by its smooth pods. Linnæus by the name *dubium* seemed to suspect it might not be distinct from the common Poppy, *t.* 645, but we believe no species can be better defined.

The stem is about 2 feet high, leafy, clothed with horizontal spreading hairs, while the flower-stalks are covered with close-pressed bristles. The segments of the leaves are broader than in *P. Argemone* and *hybridum*. Petals broader than they are long, crenate, of a palish scarlet. Stamina linear, Pollen yellow. Stigma with 6 or 8 rays. Germen and capsule oblong, thicker upwards, slightly furrowed, perfectly smooth, and somewhat glaucous.

The Linnæan character of the close-pressed bristles on the flower-stalks admirably distinguishes this poppy from *P. Rhoeas*, the only species with which it could otherwise be confounded.

Papaver Rhoeas.

PAPAVER Rhoeas.

Common Red Poppy.

POLYANDRIA Monogynia.

GEN. CHAR. *Cal.* two-leaved. *Petals* four. *Stigma* radiated. *Caps.* superior, discharging its seeds by pores under the stigma.

SPEC. CHAR. Capsules smooth, nearly globose. Stem many-flowered, bristly, with all the bristles spreading. Leaves pinnatifid, cut.

SYN. Papaver Rhoeas. *Linn. Sp. Pl.* 726. *Huds.* 230. *With.* 486. *Hull.* 116. *Relh.* 203. *Sibth.* 165. *Abbot.* 116. *Curt. Lond. fasc.* 3. *t.* 32. *Woodv. Med. Bot. t.* 186.

P. laciniato folio, capitulo breviore glabro, annuum, Rhoeas dictum. *Raii Syn.* 308.

THIS is the most common of all our Poppies, and one of the most troublesome weeds on arable lands, as its seeds remain under ground, retaining their vegetative powers for a long time, and furnishing a fresh crop of Poppies whenever the earth is turned over. The *P. Rhoeas*, however, is one of our most beautiful wild flowers, though an unpleasant object to the farmer. A syrup made of its petals is kept in the shops, as a gentle opiate for children.

The root is annual, and the flowers appear in June and July. The flower-stalks, as well as the stem, in this species, are covered with horizontal taper hairs. Leaves once or twice pinnatifid, serrated, generally hairy. Petals large, broad, crumpled, of a deep vivid scarlet, and with a rich silky gloss. They have sometimes a black spot near the base. See *Withering.* Stamina linear. Pollen yellow. Stigma of many rays. Capsule short, cup-shaped, perfectly smooth.

Erodium maritimum.

ERODIUM maritimum.

Sea Stork's-bill.

MONADELPHIA Pentandria.

GEN. CHAR. *Cal.* five-leafed *Petals* five. *Honey-glands* five. *Barren filaments* five. *Fruit* beaked, separating into five capsules, each tipped with a long spiral awn, bearded on the inside.

SPEC. CHAR. Flower-stalks barely three-flowered. Leaves heart-shaped, cut, crenate, rough. Stems close-pressed to the earth.

SYN. Erodium maritimum. *L'Herit in Ait. Hort. Kew. v.* 2. 416.

Geranium maritimum. *Linn Sp. Pl.* 951. *Huds.* 301. *With.* 606. *Hull.* 153. *Dicks. H. Sicc. fasc.* 11. 11.

G. pusillum supinum maritimum, Althææ aut Betonicæ folio nostras. *Raii Syn.* 356.

A NATIVE of sandy sea-shores in several parts of the kingdom, flowering from May to September. Our specimens were gathered in Cornwall, at St. Michael's Mount, the Lizard Point, and other places.

Root perennial. Stems lying close to the ground, spreading in every direction to a great extent, round, leafy, hairy, rather succulent. Leaves on long foot-stalks, with a pair of purple membranous stipulæ at their base, simple, ovate, or heart-shaped, cut and notched, clothed with depressed hairs. Flowers very small, 2 or 3 on a stalk, but often solitary. Calyx tipped with glandular awns. Petals oblong, narrow, unequal, shorter than the calyx, flesh-coloured. Stamina five, with flesh-coloured antheræ, and 5 barren filaments ranged alternately with them. Capsules inversely conical, sharp at the base, hairy, crowned with a spiral awn, whose inside is clothed with silky hairs. The herb has a strong smell, like most of the Geranium tribe.

We think M. L'Heritier has shewn great judgment in separating this genus from *Geranium* as well as *Pelargonium*, and that the above characters sufficiently distinguish it.

ANTHOXANTHUM odoratum.
Sweet-scented Vernal Grass.

DIANDRIA Digynia.

GEN. CHAR. *Cal.* a husk of 2 valves, single-flowered. *Cor.* of 2 valves, awned. *Seed* 1.

SPEC. CHAR. Spike ovato-oblong. Flowers longer than their awns, standing on short stalks.

SYN. Anthoxanthum odoratum. *Linn. Sp. Pl.* 40. *Sm Fl. Brit.* 31. *Huds.* 11. *With.* 58. *Hull.* 7. *Relh.* 11. *Sibth.* 18. *Abbot.* 8. *Curt. Lond. fasc.* 1. *t.* 4. *Mart. Fl. Rust. t.* 23.
Gramen vernum, spicâ brevi laxâ. *Raii Syn.* 398.

THIS is the only British grass, except *Bromus diandrus* and *Carex atrata* that has fewer than 3 stamina, by which mark it is therefore easily known. It grows frequently and plentifully in pastures, flowering in May and June, and is supposed to have a principal share in causing that delightful fragrance so well known in a hay field; for when partially dried it exhales a very sweet odour, and, even in a recent state, its stalks, if chewed, are found highly aromatic, tasting not unlike those of fresh lavender. It is esteemed a good food for cattle in general, but we know of no particular experiments that have been made upon it.

Root fibrous, perennial. Stems a foot high, erect, simple, with one or two joints, which are often bent, leafy below. Leaves short, flat, pointed, bright green, a little hairy. Sheath long, swelling. Stipula lanceolate, erect, white, membranous. Spike terminal, erect, solitary, lanceolate, many-flowered, compound, yellowish in decay. Bracteæ small, lanceolate. Flowers lanceolate, generally closed. Calyx of 2 unequal husks, rough on the back, sometimes hairy. Petals nearly equal, brownish, bristly, each bearing an awn on its back, of which the longest is jointed. Nectary of 2 small green leaves. Stamina capillary and very long. Antheræ linear, purplish, splitting at each end. Styles long, downy.

Aira cristata.

AIRA cristata.
Crested Hair-grass.

TRIANDRIA Digynia.

GEN. CHAR. *Cal.* of two valves, two-flowered. *Cor.* of two valves. *Florets* without any imperfect one between them.

SPEC. CHAR. Panicle spiked. Calyx longer than its flower-stalk. Petals sharp-pointed, unequal.

SYN. Aira cristata. *Linn. Sp. Pl.* 94. *Sm. Fl. Brit.* 83. *Huds.* 33.

Poa cristata. *With.* 145. *Hull.* 22. *Relh.* 37. *Sibth.* 42. *Abbot.* 19.

Gramen pumilum hirsutum, spicâ purpureo-argenteâ molli. *Raii Syn.* 396.

IN dry calcareous barren pastures, or on walls, but not very frequent, nor is it a grass generally well understood. Mr. Salt communicated it from the wild romantic rocks of Middleton-dale, Derbyshire. It is perennial, and flowers about July or August.

Root of many simple downy fibres, crowned with a thick tuft of leaves. Stems simple, erect, about six inches high, smooth, purplish, most leafy below. Leaves linear, smooth, a little rigid, with a short stipula, and a long sheath which is sometimes downy. Panicle erect, dense, resembling a spike, compound, of a silvery green hue; its flower-stalks downy; the partial ones very short and erect. Flowers ovato-lanceolate. Calyx for the most part containing two florets, rarely three, nor have I ever seen more. It is formed of two unequal slightly downy husks, sharp-pointed, keeled, and ribbed, with a membranous edge. Outer petals like the calyx; inner much thinner and narrower, very little shorter. Sometimes the points of the husks are lengthened out into short awns.

In habit this is much more like an *Aira* than a *Poa*, and indeed the number of the florets, scarcely ever more than two, makes it such. I suspect Linnæus latterly confounded another grass with it, which has more numerous florets.

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